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India in 2007 generated 380,000 tonnes of e-waste from discarded Computers, Televisions and Mobile Phones

Introduction

The information and communication technology (ICT) sector in the last twenty years or so in India has revolutionized life of one and all, ratcheting a viral effect on electronic manufacturing industries leading to phenomenal growth in terms of both, volume and applications. Digital development has become the new mantra having its all engulfing footprints every where.

The booming usage of electronic and electrical equipments has created a new but very dangerous stream of waste, called "electronic-waste", or simply known as e-waste. With the presence of deadly chemicals and toxic substances in the electronic gadgets, disposal of e-waste is becoming an environmental and health nightmare. E-waste is now one of the fastest growing waste streams. Every year, hundreds of thousands of old computers, mobile phones, television sets and radio equipment are discarded, most of which either end up in landfills or unauthorized recycling yards.

According to a MAIT report¹, India in 2007 generated 380,000 tonnes of e-waste from discarded Computers, Televisions and Mobile Phones. This is projected to grow to more than 800,000 tonnes by 2012 with a growth rate of 15 %. The estimate includes 50, 000 tonnes of such e-waste imported from developed countries as charity for reuse, which mostly end up in informal recycling yards either immediately or once the re-used product is discarded. This is a conservative and restricted² estimate. Complex, ambiguous definitions of second-hand electronic equipment has made it difficult for the customs department to trace, identify and stop the illegal in-flow of e-waste.

The authorized e-waste recycling facilities in India capture only 3% of total e-waste³ generated; the rest makes its way to informal recycling yards in major cities like Delhi, Mumbai and Bangalore. This is because businesses sell their discarded IT and other equipment to informal recyclers for quick money without realizing the hazardous implications it causes to health and environment.

MAIT-GTZ study on Assessment of e-waste in India, Business Standard (2008), India
The Computer, Television and Mobile Phone e-waste is calculated as being 1/3rd of total e-waste stream in the EU. See: United Nations University, 2008 Review of Directive 2002/96 on WEEE, August 2007, p. 62.

MAIT-GTZ study on Assessment of e-waste in India, Business Standard (2008), India

E-waste is much more hazardous than many other municipal wastes because electronic gadgets contain thousands of components made of deadly chemicals and metals like lead, cadmium, chromium, mercury, polyvinyl chlorides (PVC), brominated flame retardants, beryllium, antimony and phthalates. Long-term exposure to these substances damages the nervous systems, kidney and bones, and the reproductive and endocrine systems, and some of them are carcinogenic and neurotoxic. Primitive recycling or disposal of e-waste to landfills and incinerators causes irreversible environmental damage by polluting water and soil, and contaminating air. A study conducted by Greenpeace in 2005 in electronic recycling yards in Delhi clearly indicates the presence of high levels of hazardous chemicals including deadly dioxins and furans in the areas⁴ where this primitive recycling takes place.

The solution to the impending e-waste crisis lies in prevention rather than its management. Recycling of e-waste is beyond the means of a consumer or local government, given its toxic nature. The solution lies with the brand owners or manufacturers of electronic products, which need to bear responsibility for financing the treatment of the own-branded e-waste, discarded by their customers. This is known as the principle of Individual Producer Responsibility (IPR). The rationale for IPR is that by making producers responsible for the end-of-life costs of their products, a feedback loop is created to product developers and designers to design out end-of-life costs, e.g. by making the product less toxic and more amenable to material recycling.

Legislation embracing Producer Responsibility for e-waste is already in force in the EU, Japan, Korea, Taiwan and some US states. Greenpeace expects responsible companies to treat all their customers globally in the same way and offer takeback and recycling services wherever their products are sold – not just in countries where this is a legal requirement. Greenpeace requires manufacturers to offer free, easy takeback of their products once discarded by their customers and ensure responsible recycling and disposal wherever their products reach their end-of-life phase.

In India some brands have initiated take-back programmes but these are not working as well as they should. Moreover, brand owners should also work towards establishing a robust system of e-waste collection and treatment infrastructure so that e-waste can be collected and recycled in a safe manner.

www.greenpeace.org/india/press/reports/recycling-of-electronic-waste

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⁴ Recycling of electronic waste in China and India: Workplace and Environmental contamination, Bridgen, K., Labunska, I., Santillo, D. & Allsopp, M. (2005)

The report focuses only on the policies and practices of electronic brands on the Indian market

Rationale

Set in the context of a looming e-waste crisis created by both domestic and imported ewaste with little formal recycling infrastructure in place, this report aims to give a snapshot of company policies and practices on take-back in India.

A group of both global and Indian electronic brands active in India has committed to work on developing legislation embracing the principle of Producer Responsibility, so it is important to use the existing experiences of companies providing or trying to provide takeback and recycling services in India to ensure that any legislation to address this issue is effective in the Indian situation.

This report presents the position of each brand on IPR and its application on the ground through the takeback services offered in India.

The report focuses only on the policies and practices of electronic brands on the Indian market and therefore its findings are not applicable to other countries.

The findings of this report will hopefully encourage those companies that have no takeback service for Indian customers to initiate this service in India. Those companies that publicly claim to offer takeback and recycling services in India should ensure that their programmes work and instructions provided to consumers on what to do with their discarded e-scrap are correct and enable the Indian customer to drop off their e-waste so that it can responsibly be recycled.

Nine brands have no takeback service in India

Findings from the study

- 9 of the 20 brands surveyed for their takeback practice in India have no takeback service in India: Apple, Microsoft, Panasonic, PCS, Philips, Sharp, Sony, Sony Ericsson..and Toshiba
- Samsung claims to have a takeback service but only one collection point for the whole of India - at their production plant. Moreover, Samsung only offers a takeback service for its mobile phones, nothing for all their other products.
- Two brands stand out as having the best takeback practice in India: HCL and WIPRO. HCL falls down in providing customers with no physical collection points, only on-line registration. WIPRO could improve by providing better information to its customers.
- Other brands that do relatively well are: Nokia, Acer, Motorola and LGE. Nokia has 354 collection points, takes back for free, but the service is only working in the big cities. Acer only provides on-line registration, but the service is free. Motorola has free takeback but just 10 collection points in 7 cities, and not all the service points are working. LGE only provides a takeback service for its mobile phones at 9 collection points, not for the rest of its large product portfolio.
- HP's takeback service, although free, is quite poor in India, providing on-line registration for takeback services only for corporate and not for individual customers. But Greenpeace received no response to its on-line registration for takeback.
- Dell, Lenovo and Zenith all claim to provide a takeback service in India but when tested by Greenpeace, it proved not to be working.
- Of those brands that provide takeback services in India, many including Acer, Dell and LG Electronics do not have takeback information on their Indian websites making it difficult for Indian customers to access the information and avail themselves of the service
- Only two brands, Acer and HCL, have come out publicly in support for e-waste legislation in India. Positions on this from other brands are not clear.
- No brand has invested much in education and awareness of general customers on ewaste management despite its tall claim.
- Few brands have taken any initiative to train their frontline staffs on takeback and recycling service.

Methodology

The study examined whether companies provide information on their takeback policy and practice in India and whether the instructions provided to customers on taking back their end-of-life products actually work in practice. Following the information available on a company's website, frontline staff at the service centre/ collection point along with the designated person were either visited or contacted to verify implementation of the service offered by the company. The study is spread across the tier-1, tier-2 and tier-3 cities to assess the outreach of the service offered.

Selection of companies tested

Greenpeace tested the takeback information and practice on the ground in India for all the companies that are ranked in the Indian version of the Greenpeace Guide to Greener Electronics, with the exception of Fujitsu Siemens Computers and Nintendo, both of which have no presence on the Indian market.

The companies whose takeback information and practice were tested in this snapshot survey are: Acer, Apple, Dell, HCL, Hewlett-Packard (Hp), Lenovo, LG Electronics, Motorola, Microsoft, Nokia, Philips, Panasonic, PCS Technology, Sony, Sony Ericsson, Samsung, Sharp, Toshiba, Wipro and Zenith.

Criteria used to assess company policy and practice on takeback in India

1. Global Policy	Is there information about the brand's policy on IPR on global website?	If yes, does the brand explicitly support and lobby for IPR globally and in India? Yes/No	Does the brand have any voluntary takeback programmes anywhere in the world?	Is the information sufficient? Yes/No	
2. Policy and Practice in India	Is there info about the brand's policy on IPR on the Indian website? Yes/No	If yes, does the brand explicitly support and lobby for IPR in India? Yes/No	Is there info on any takeback programmes in India? Yes/No	Is the information sufficient? Yes/No	
3. Practice on the	How many collection points in	Is the takeback service free?	Does the brand provide takeback for	Does the brand provide a	Testing of the information

ground in India	India? Are the collection points evenly (geographicall y) distributed across India? Is there an online registration system? i.e. is takeback/brin g back easy and convenient?	i.e. Does the brand charge a recycling fee? Does the brand charge a shipping fee?	all its products? Yes/No If not all, which products? E.g. Only mobile phones	similar level of takeback service to both B2B and B2C customers?	provided on company website? i.e. do the collection points know that they are collection points? Are staff aware of the takeback service?
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The Assessment was done in the following manner:

Step 1: Review of Company's takeback and recycling policy on its Global website

- Review companies' policy on Individual Producer Responsibility
- Information to the customers in particular on how to access the service, specifically in India
- Nature and process of Takeback service i.e. product scope of takeback service, availability of takeback service for both business and individual customers, collection method for end-of-the-life products; number of collection points with locations; logistical support offered, free of cost or any fee charged for collection and/or recycling; uniformly of takeback service offered in all countries where the company sells its products.

• Step 2: Review of Company's takeback and recycling policy and practice on its Indian Website

- Review company's policy on Individual Producer Responsibility in India
- Assess company's takeback policy in India to assess consistency with Global policy.
- Map the takeback mechanism on the ground: service offered to Indian customers i.e. collection method, number of collection points and their locations, product coverage, availability of service for both business and individual customers, logistical support, shipping and/or recycling fees
- Clear dissemination of instructions concerning the take back service.

Step 3: Verification on the ground

- Based on the takeback/bring back instructions provided by the company, its frontline staff and/or designated person for collection are contacted by phone and e-mail.
 - If company uses collection bins at designated service centres and / or specified collection points, the designated person is contacted by phone and e-mail to check their knowledge about the takeback service.
 - If company provides on-line registration form for collection of discarded products, registration form is completed and submitted to check their response.
- Based on responses received by phone and/or e-mail, some selected collection centers are visited personally to verify the practice on the ground.

The global brands with no takeback programme in India, despite some tall claims on producer responsibility, undoubtedly falter on their commitment in India and treat their Indian customers as second-grade clients.

Conclusion

1. No takeback services in India.

The study brings home a shocking fact. Nine brands have no takeback service in India, despite many of these same global brands providing a voluntary takeback service in countries like the US. The global brands with no takeback programme in India, despite some tall claims on producer responsibility, undoubtedly falter on their commitment in India and treat their Indian customers as second-grade clients. These companies indirectly foster the growth of the informal recycling by failing to provide easy and free takeback service to ensure responsible recycling

Table: 1 How companies line up on take-back in India				
Take-back Service	Take-back service is not available in India			
available in India				
Acer	Apple			
Dell*	Microsoft			
HCL	Panasonic			
Hewlett-Packard (HP)**	PCS Technology			
Lenovo	Philips			
LG Electronics*^	Sharp			
Motorola	Sony			
Nokia	Sony Ericsson			
WIPRO	Toshiba			
Zenith				
Samsung				

- * Information regarding take-back in India is only available on global website
- ^ Take-back service is only available for Mobile Phone
- ** Take-back service is only available for corporate customers.

Despite the absence of any legal binding requirements, Indian brands like HCL and WIPRO are offering voluntary takeback and recycling service to their customers. Although Zenith also offers takeback the information is poor and testing by Greenpeace, by sending an email request for takeback, received no response. Mobile phone majors - Nokia, Motorola - and PC brands like Acer and Lenovo, in tune with their global policy, at least, are offering takeback service in India. HP offers takeback service only for its corporate customers but small businesses and individual customers are missing in this service. Dell and LG

electronics offer takeback service in India without providing sufficient information on their Indian web portals, making it difficult for the consumers to access proper information, which acts as a disincentive. Further, LG electronics and Samsung offer takeback services only for mobile phones, omitting all their other products, including TVs, that have high market shares in India.

2. Are the takeback services functioning?

Interestingly, only one global brand, Acer and two India brands, HCL and Wipro have functioning takeback services in India. HCL and WIPRO are ahead of most of their counterparts in implementing their takeback service on the ground. On the other hand, big brands like LG Electronics and Motorola are still not able to make their takeback service in India fully operational.

Table: 2 Functionality of Take-back service on ground in India				
Properly working Take- Partially Working Take-back service not				
back Service	Take-back Service	working at all		
Acer	LG Electronics	Dell		
HCL	Motorola	Hewlett-Packard (HP)		
WIPRO	Nokia	Lenovo		
		Zenith		

HCL, Wipro and Acer have not only made this service functioning but also pan-Indian. LGE has not been able to streamline the service even for its nine collection points. Moreover, in past one year, LGE has failed to add even a single collection center. Hp, Dell and Lenovo on their part claimed to have made the takeback service operational, which is not true. Whatever information on takeback service these companies have for India lead to receiving no or wrong response from these information links. Zenith is another company accused of corporate misinformation as its takeback service does not work on the ground. This study also reveals interesting information about Samsung. Samsung India's mobile phone website states that there is one takeback collection point at its Noida factory, but when approached it turned out to be fake, apparently an attempt to green-wash. Amazingly, Samsung India's appointed person for e-waste management does not even know that his company has any such collection point in India. And when it was brought to his notice, his immediate action was to block the web link without responding to the Greenpeace query.

3. Is the information accessible and sufficient to inform consumers on what to do with their discarded products?

Information easily Information partially Information is not					
Accessible	accessible	accessible			
HCL	Acer	Dell			
WIPRO	Lenovo	LG Electronics			
	Motorola	Zenith			
	Nokia				

The study also clearly shows that information related to the takeback service is not easily accessible. Some of the brands, notably LG Electronics and Dell, have not posted information on takeback in India on their respective Indian websites. One has to visit their global portals to get this information. Ditto with Acer. Acer's web portal only provides an erequest form to post request for the collection of discarded product.

4. Education and raising awareness on takeback services

This study finds that none of these brands have taken any notable initiatives on educating and raising awareness of their customers on the environmental and health impacts of ewaste, as well as its need for customers to bring back/post back their discarded e-products for -recycling. Brands are directly responsible for huge volumes of e-waste generated in India due to their fast obsolescing technology that dramatically reduces the lifespan of an electronic product. Yet, they spend millions of rupees on marketing campaigns, celebrity endorsement and billboard advertisements to promote their products. They try to influence customer preference. This is all for educating the people on the product, not on the consequences of the end-of-life product.

Not only are the brands failing to educate their customers on takeback, with a few exceptions, most of the brands have made no effort to train their frontline staff on the takeback and recycling services they offer..

5. Support for takeback legislation for e-waste

This study shows that with the exception of two brands - Acer and HCL - , no other brand has come out publicly in support of legislation n India. These same brands are globally committed to IPR as principle and should be ready to work for legislation in India at the national level.



Brands are directly responsible for huge volumes of e-waste generated in India due to their fast obsolescing technology that dramatically reduces the lifespan of an electronic product

Annexure 1

How the companies line up on takeback policy and practice in India?

Acer

Global Policy

Acer globally supports and actively strives to implement the principle of Individual Producer Responsibility (IPR). In India, Acer supports legislation for e-waste management and is willing to cooperate with the local Industry association MAIT⁵ to push the government for WEEE legislation embracing IPR. However, the company plans to implement EPR only gradually in India to meet its producer responsibility.

The brand offers voluntary and free takeback services in India and the US, even though only some US States have legislation making producers responsible for dealing with e-waste. A country-specific web link is provided to access detailed country-relevant information. http://www.global.acer.com/about/sustainability32.htm

India

Though Acer supports IPR globally, insufficient information is available on its Indian website. In fact, information on India is available only on the global website with nothing on the local website.

Acer informs Indian customers about its voluntary and free take-back service for discarded products and asks customers to send their request for collection through e-registration, a form available on the web. Apart from that, the address of e-waste coordinator with telephone number is given in "Terms and condition" section. http://www.acer.co.in/home/ewaste.asp

Practice

Acer's take-back service works in India, available through e-registration by customers. The service is free, but the company asks customers to send their discarded products through a courier after receiving an "eRF code" from the company. The take-back service is available for Acer's whole product range and for all its customers.

Apple

Global Policy

Even though the US based electronic giant produces cutting age electronic gizmos, a global voluntary and free take-back service is not its priority. Apple refers to its "individually responsible approach" to recycling through its own take-back and national take-back

⁵ Manufacturers' Association for Information Technology

program. However, its definition of IPR is weak and unclear. There is no information available about Apple's explicit support and lobby for IPR globally. Apple offers voluntary take-back service in regions where more than 82 % of Macs are sold. Apart from US, information for other countries is not sufficient.

http://www.apple.com/environment/recycling/

India

Apple's claim on global products stewardship and an "individually responsible approach" is completely non-existent in India.

Apple does not offer any take-back service to its customers in India.

http://www.apple.co.in/

Dell

Global Policy

Dell has an explicit policy statement in support of IPR on its global website. The brand believes that IPR as a policy framework will provides incentives for efficient collection, recycling and redesign of products. Dell also claims to be working with various governments worldwide to draft policies consistent with the IPR principle. In US, Dell collaborates with state legislators and the Congress for appropriate legislation for recycling of products. However, there is no information related to Dell's position on IPR in India. http://www.dell.com/downloads/global/corporate/environ/recovery_policy.pdf

 $\frac{http://www.dell.com/content/topics/global.aspx/about_dell/values/sustainability/environment/product?\sim\!ck=ln\&c=us\&l=en\&lnki=0\&s=corp$

Dell offers a free and voluntary take-back service in countries in North America, Latin America, Europe, Asia and Australia. Dell has a take-back service in India in the form of free consumer recycling and asset recovery.

http://www.dell.com/content/topics/global.aspx/about_dell/values/environment/warsmap?c=u s&l=en&s=corp

India

There is no information available on Dell's Policy on IPR on its Indian website. Dell offers voluntary take-back in the form of "Value Recovery," but only for large institutional and business customers. The take-back service is not available to individual and small business customers. The asset recovery service is also available for large corporate customers. http://www1.ap.dell.com/content/topics/global.aspx/services/asset_recycling/value_recovery?c=in&l=en&s=lca&~ck=anavml

Practice

Dell's free "Value Recovery" service for large corporate customers is available through an on-line request form. There is no clear mention of which products Dell will take-back under its value recovery service.

HCL

Policy

Indian PC market leader, HCL strongly supports the principle of Individual Producer Responsibility and believes that comprehensive e-waste legislation in India based on IPR is essential in the present context. However, information related to HCL's lobbying for e-waste legislation in India is not mentioned

HCL offers free, voluntary takeback service to all its customers for responsible recycling. Information available on its website is comprehensive. The e-registration form is available for sending a takeback request. The address, along with telephone number and e-mail of Ecosafe Desk is provided for further information.

http://www.hclinfosystems.in/hclesafe_ipr.html#top

Practice

HCL offers free, voluntary take-back service not only for all of its products through on-line registration by customers, but also for any other brand's computer hardware. The company does not charge any recycling or shipping fee for collection of discarded products. The Ecosafe desk provides all information related to the service promptly and directs the customer to the online registration..

Hewlett-Packard (HP)

Global Policy

The US global giant and Indian PC market leader, Hewlett-Packard (HP) globally supports IPR and advocates that all manufactures should be responsible for recycling their own branded end-of-the-life products. The company is closely collaborating with several national governments in North America, Australia and Asia to have legislation based on IPR. HP is also one of the founding members of European Recycling Platform and has supported IPR in the European Union's WEEE directive. However, there is no information on its global website which confirms its pro-IPR position in India or information about its lobbying to make IPR a reality in India.

http://www.hp.com/hpinfo/globalcitizenship/environment/recycle/individualproducerresponsibility.html

HP offers voluntary take-back service in many countries including India. However, there are serious gaps in its take-back service in Africa, Asia and Latin America. Its phone accessories and rechargeable battery take-back program is limited to North America. Products-wise, specific country web links are provided for customers to access information related to takeback of specific products, with a lot of focus on printer cartridges. http://www.hp.com/hpinfo/globalcitizenship/environment/recycle/index.html

Despite its claim to follow an uniform approach, corporate customers get a much better service in terms of different programmes like buyback, trade-in and leasing arrangements which are not available to individual customers.

India

The company's public position on IPR and e-waste legislation in India is not explicit; rather one can say quite contradictory. There is nothing on the Indian website that suggests HP favours IPR based e-waste legislation in India.

In India, HP offers a voluntary takeback service under "HP's Planet Partners" programme. The service covers its entire product line and non-HP products. However, the "Terms and Conditions" section says that HP's logistics partner reserves the right to reject any discarded products if found unfit for recycling. Information on the Indian web link is not sufficient as no contact address or telephone number is not given to access further information by customers.

http://h20423.www2.hp.com/program/suppliesrecycling/in/en/hardware/index.asp

Practice

HP offers takeback service through on-line registration sent by customers, followed by collection of discarded products by HP's logistics partner on an agreed date. However, information related to take-back in India is not easy to access due to the difficulty in navigating from HP India's Home page. The take-back service is free, both for recycling and shipping. However, the take-back service is only offered to its business clients, not to individual customers.

Lenovo

Global Policy

In its "Environmental Report 2007-08", Lenovo mentions its IPR policy and support for legislation embracing IPR. However, it does not explicitly specify how each producer should be financially responsible for treatment of its own end-of-life products. Further, Lenovo does not provide any information on its lobbying activities for legislation in any part of the world. http://www.pc.ibm.com/ww/lenovo/about/sustainability/environment/Environmental Report May 2008.pdf (page 9)

Lenovo offers voluntary takeback and recycling services where it sell products directly to its customers in 56 countries covering Asia, Europe, North and South America. However, takeback and recycling services are not offered in those countries where its products are sold by re-sellers. Country specific link is provided for information on voluntary take-back for India. http://www.pc.ibm.com/ww/lenovo/about/sustainability/environment/Product Recycling Program.html

India

The Indian website of Lenovo does not have any mention of either IPR or the company's position on legislation in India. It informs all its customers - both business and individual - about the voluntary take-back services that it offers. However, the information related to

takeback in India is exactly the same as is available on the global web link. There is no specific information available on the Indian website. Information on how the customer should access the service: method of collection, payment of any fee and type of products covered by the service, is absent.

http://www.pc.ibm.com/ww/lenovo/about/sustainability/environment/ptb india.html

Practice

Lenovo offers its takeback service through its recycling partner. Requests for specific information about take-back to the recycler, Trisharaya met a dead end. Requests over the phone followed by an e-mail, as requested by the recycler, yielded no specific information.

LG Electronics

Global Policy

Under its Global take-back policy, the Korean market leader in India recognizes IPR as a means to manage future electronic waste. But, there is little evidence to suggest that LG Electronics is involved in lobbying for IPR implementation in any part of the world. There is no information available on its position on IPR in India.

LG Electronics now provides voluntary take-back service for discarded mobile phones in 50 countries through 392 drop-off points globally. Of those, only 9 collection points are in India. Information on the takeback service for other products is available in a few countries. For mobile phone takeback, a country specific link is given which provides a list of collection centres in that particular country with contact address, contact number and e-mail address. http://www.lge.com/about/sustainability/take-back recycling.jsp

India

There is no information available on its Indian website on IPR and voluntary takeback, despite this being contrary to what the brand says on India on its global website. The Indian website also does not provide information on the nine collection centers for discarded mobile phones the company has in India, http://www.in.lge.com/

Practice

LG Electronics offers a free takeback service for discarded mobile phones in India through nine designated collection points for all its customers. With the exception of Bangalore and Kolkata, all collection centers are in tier two cities making it difficult for the vast number of fast moving metro consumers to dispose of their discarded mobile phones. Also, the location of collection points is not evenly distributed. Its voluntary take-back service in India covers only mobile phones, with no service for all LGE's other end-of-life products that include televisions, air-conditioners, refrigerators, music systems, etc. The staff in only some of the collection centers are aware about the company's take-back policy in India. Few of the collection centers are even aware that they are listed on LGE's website as designated points for collection of old mobile phones. The executives manning the customer care centers of

LG Electronics approached by Greenpeace expressed ignorance about the takeback programme.

Motorola

Global Policy

US based communications company, Motorola recognizes manufacturer's responsibility in the management of electronic waste and supports IPR .The brand pitches for a collective effort by the brands, consumers and government to mitigate the environmental challenges from the mounting e-waste. However, there is no clear evidence that suggests Motorola lobbies for IPR laws in any part of the world.

Motorola offers takeback services in 72 countries including India covering 90 % of its market. . However, Motorola admits its take-back service in emerging market likes India and Thailand is still not mature.. Motorola gives information regarding its diverse efforts in collecting discarded products. For specific information on how to access the service, country specific web link is provided.

http://www.motorola.com/content.jsp?globalObjectId=8509

India

According to its Indian web site, Motorola does not have a clear position in India as far as IPR and e-waste legislation is concerned.

In 2007, Motorola launched the voluntary "ECOMOTO" take-back service for its Indian customers. The list of 10 collection centres, with postal addresses is given on the Indian website. But contact numbers for these collection centers are missing. Customers are asked to drop discarded mobile phones and other small products in collection bins. Information related to the EcoMoto take-back programme for other products such as radios, broadband devices, network equipment and accessories is not elaborated. For larger equipment like network and broadband devices, it provides on-line request form for help and support.

Practice

Ten collection points in seven cities have been set up by Motorola for collection of discarded mobile phones, accessories and other small equipment like two-way radios and chargers: New Delhi (1), Bangalore (3), Mumbai (1), Chennai (2), Hyderabad (1), Kolkata (1) and Gurgaon (1). Five collection centers are situated in its corporate and regional offices in different cities; the rest are at the outlets of its retail and repair service provider, Redington India Pvt. Ltd. The takeback service is completely focused on metros leaving tier-2 and tier-3 cities with no takeback service. There is no fee charged by the company for collection and recycling of discarded products. Apart from collection centers for smaller products, an online registration form is available for large products like network equipment. The takeback service offered by Motorola is for all its products and for all its customers - individual as well as corporate customers. However, collection bins as mentioned on the web site could not be located in every designated collection centre.. Out of five centres tested during this investigation, only four have collection bins. Further, most of the staff do not have any

knowledge about the service.. At some locations, the frontline staff have no idea about why the collection bin is there.

Microsoft

Global Policy

The software behemoth is a relatively new entrant to the game console market. Microsoft maintains that the producer must bear the cost of collection and recycling of its end-of-life products. But the company does not propose any explicit mechanism to work towards this end. The company's stand on IPR is not clear.

http://download.microsoft.com/download/f/8/f/f8f0fc33-3c5d-4fd8-a36e-348543f3539f/SustainabilityFactSheet.doc

Microsoft does not offer voluntary take-back services directly for its game console customers anywhere in the world. Microsoft has a tie up with the CEA, a recycling company which accepts Microsoft products including Xbox from the US customers only. However, on the CEA web portal, Microsoft's Xbox is missing from the product list, creating confusion. http://www.mygreenelectronics.org/RecycleCorpPrograms.aspx

Microsoft has initiated a refurbishing program called Microsoft Authorized Refurbisher (MAR) for extending the lifespan of obsolete PCs by providing low cost genuine software. http://oem.microsoft.com/public/seo/mar.htm

India

There is no information available on its Indian website that presents Microsoft's position on IPR in India or on e-waste legislation. Microsoft does not have a take-back service for its Xbox in India. Further, information related to its refurbishing program, MAR is not available on its Indian web portal main page. http://www.microsoft.com/india/msindia/

Nokia

Global Policy

The world's largest mobile phone producer, Nokia states on its global website support for the concept of IPR but also recognizes the importance of other stakeholders like customers and retailers for the implementation of IPR. However, Nokia does not spell out how it plans to put this policy to practice.. There is no information available on its website which suggests that Nokia is lobbying for IPR anywhere of the world.

Nokia offers free, voluntary takeback service in many countries including India. Recently it expanded its global takeback programme by including more countries in Africa and Latin America along with increasing the number of collection points. The information provided is sufficient with contact addresses and telephone numbers of Care centers as well as updates on where new takeback programmes are being developed. http://www.nokia.com/A4243029

India

Despite being the biggest mobile phone brand with two-thirds of Indian market and a leading global brand, Nokia is completely silent in India on issue of IPR and e-waste legislation. Nokia offers a voluntary take-back service through its Care Centers in 354 Indian cities. Information is available to customers to drop off their old mobile phones and accessories at the nearest Nokia care centre for recycling. http://www.nokia.co.in/A4821048

Practice

It is not clear how many collection centers Nokia has in India for takeback. Information on the Indian website suggests that all Nokia care centers across the country are designated collection centers for old mobile phones and accessories. If that is true then it can be said that Nokia has spread its take-back service across the country covering every nook and corner. Investigation reveals that though the take-back service offered by Nokia is free and available for all types of customers- individual and corporate - the service is largely concentrated in metros and big cities. The takeback service has yet to reach medium and smaller cities. Most of the care centers in medium and smaller cities do not even know that they are designated collection points as listed by the company. Most of the staff at care centers, even in big cities, do not possess sufficient knowledge about company's take-back service.

Panasonic

Global Policy

Panasonic supports Extended Producer Responsibility (EPR), instead of IPR as effective mechanism for collection and recycling of end-of-life products. However, the company is also a member of the coalition called the Electronic Manufacturers' Association for Responsible Recycling (EMCRR) that does not support IPR and demand that consumer should pay Advance Recycling Fee (ARF). http://www.panasonic.net/eco/recycle/

Panasonic does not have global voluntary takeback service that covers its product range. Its Notebook recycling programme is only available in Europe, North America and Japan covering 95 % of its PC product sale. There is no voluntary take-back for consumer electronics like Televisions, Music systems etc. Again, toner cartridges and mobile phone take-back is only limited to Europe.

India

There is nothing in the Indian website to suggest that the company is running, or plans to run, any take-back service in India. There is no visible intension to put IPR framework to practice in India, not even a hint on whether the company wants legislation. No information whatsoever is available on Indian website related to IPR and Voluntary take-back in India. http://www.panasonic.net/eco/recycle/region.html

PCS Technology

Policy

PCS Technology has moved slightly in Indian version of Greenpeace Guide to Greener Electronics. But the company is yet to announce its policy for e-waste management, hence no take-back and recycling services are available for its customers. http://www.pcstech.com/greensafe.asp?ygs=gsafe1

Philips

Global Policy

The Netherlands based consumer electronics giant, Philips does not support but acknowledges that Extended Producer Responsibility (EPR) can be a mechanism for improving product design. It also accepts its responsibility as producer under EU WEEE legislation for recycling of electronic and electrical waste. However, the contradiction comes from Philips being a party to the EMCRR, a US-based coalition of a few TV manufacturers that opposes Producer Responsibility. On the one hand, Philips acknowledges EPR and calls for collective corporate action to minimize the recycling cost to society and customers. Then it is part of the EMCRR, a coalition that demands customers pay Advance Recycling Fee (ARF) for recycling discarded old products.

Philips offers no voluntary take-back anywhere in the world, however, it provide list of recyclers to its US customers. There is no specific information on take-back and recycling, only general advisory for recycling to customers is available on its main website.

http://www.philips.com/about/sustainability/howwework/ourpoliciesandpractices/takebackandrecycling.page

http://www.csgeast.org/pdfs/MCRR Comments 9-1 draft.pdf

India

In India, Philips recently announced a pilot project for voluntary product recycling.[PROVIDE A REFERENCE] Besides this, there is no information available on its Indian website which speaks about its position on IPR and legislation in India. Further, the announcement does not specify the scope and nature of this pilot project or give details on where and when this is being launched, how it would be implemented on the ground.

http://www.philips.com/about/sustainability/howwework/ourpoliciesandpractices/takebackan drecycling.pagery

SAMSUNG

Global Policy

The second largest consumer electronics brand in India, Samsung Electronics claims on its global website that the brand supports the principle of Individual Producer Responsibility (IPR) and recognizes IPR as a tool to provide incentives to manufactures for better product design and reducing the volume of e-waste going to landfills and incinerators. The company also claims to be involved in discussion with industry and government in different countries at various levels for the operationalization of IPR.

http://www.samsung.com/us/aboutsamsung/corpcitizenship/environmentsocialreport/environmentsocialreport PolicyPrinciple.html

Samsung's voluntary take-back and recycling services are not available in all countries where it does business, and also does not cover all its products. Samsung offers take-back services only for printer cartridges and mobile phones which is a small portion of its product portfolio. Its voluntary take-back service for mobile phones is offered in the US, Korea and China. There is no information available on its global website that Samsung has any plans in near future to introduce voluntary take-back service in India for products other than mobile phones.

India

Although Samsung globally supports IPR, for India its position is not clear.

A global takeback map for mobile phones under "Green Management Program" is available on Samsung India's mobile phone website. Contrary to information on its global website, the takeback map shows the presence of only one collection centre for mobile phones in India at the factory site of the company in Noida, (near to New Delhi). http://in.samsungmobile.com/greenmanagement/green.do

Practices

Only one collection centre for a country as big as India! But then, a visit to the Noida plant, to the collection point and a chat with the HR manager, who is also the point person on take-back and recycling reveals that the service is non-existent. The point person denies that the company has any such service available in India and asks for the weblink on the company's website but never responds to Greenpeace's request to take back. Another attempt to visit the link draws a blank!

SHARP

Global Policy

Sharp does not support IPR. It refers to producer responsibility while complying with EU WEEE directive. The company claims to be involved with industry in the planning and development of recycling systems in developing countries like India and China.

Sharp's voluntary product-specific take-back service is available in a few countries. The brand is part of the US EPA's "Plug in to e-cycle". The brand offers voluntary take-back service in Canada, Australia and Thailand for toner cartridges. Its mobile phone voluntary take-back service is limited to Australia. There is no information regarding takeback service for India in its global website.

http://sharp-world.com/corporate/eco/data/recycling_use.html

India

Despite its claim of being involved in developing recycling systems in developing countries like India, Sharp provides no evidence to substantiate this. Management of electronic waste,

its recycling and recovery in India is not on Sharp's agenda as understood from its Environment policy.

http://www.sharpindialimited.com/SIL-Env-report-07-08.pdf

Sony

Global policy

Sony only respects but does not support IPR or EPR, though Sony recognizes the importance of recycling of end-of-life products. The brand claims to be fully complying with existing laws in different countries for product takeback and recycling, There is very little it offers in terms of voluntary initiatives. Its voluntary takeback service is not worldwide and available only in few countries like US, Canada, Brazil and Australia. Its takeback service in Europe, Japan, Korea and Taiwan are in compliance with existing laws in those countries. Sony's voluntary take-back service does not cover its entire product portfolio and is only available for batteries, notebooks and cell phones in selective places. However, in the US, Sony's takeback programme covers all its products.

http://www.sony.net/SonyInfo/Environment/recycle/index.html

India

Sony has no policy on obsolete product collection and recycling for India. There is no information available on its Indian website on its position on IPR in India and presence of take-back service. Sony India's claim that it is not manufacturing but only selling in India is really an absurd attempt to deny its responsibility to Indian customers. http://www.sony.co.in/section/environment?site=hp_en_IN_i

Sony Ericsson

Global Policy

Sony Ericsson (SE) believes in the idea of taking responsibility of its own products, but then, there is no explicit support for IPR. Further, Sony Ericsson recognizes that collection and recycling of used products should be efficient and effective for resource recovery and therefore it is involved in voluntary and mandatory collection and recycling program in many countries

But the brand does not provide a list of countries where it offers take-back services. Instead, its product declarations inform customers to contact the local SE representative. The only voluntary take-back service which SE refers to is for its US customers and the USEPA-organised "Plug-in to ecycling" programme. The information available on its global website for voluntary takeback service lacks crucial information, which hinders customers from accessing the service.

http://www.sonyericsson.com/cws/corporate/company/aboutus/sustainability/environment#pr oduct recycling

India

The information available on the Sony Ericsson Indian website is exactly same as is available on its global one. Even on the Indian website, SE talks about its efforts in compliance for EU WEEE directive and its involvement in US EPA's "Plug-in to ECycling!" But nothing of relevance for India!

http://www.sonyericsson.com/cws/companyandpress/aboutus/sustainability/environment?cc =in&lc=en#industry leadership

Practice

When the local SE representative was contacted as per the global website, he denied having any such service for Indian customers!

Toshiba

Global Policy

This Japanese consumer electronics manufacturer believes that the concept of IPR is an effective approach to encourage design for recycling. However, Toshiba does not strongly support IPR as tool for management of e-waste. Toshiba believes that the development of recycling systems should take into account of country specific situations including building partnerships and joint ventures which in turn will increase efficiency, drive down the cost of recycling and lead to increased rates of recycling. Toshiba does not elaborate on how it plans to implement the concept on the ground. Also, there is no clear position on IPR in India.

Toshiba claims to have voluntary take-back services in the countries that make up 80 % of its PC sales volume. Toshiba offers voluntary take-back services in the US, Canada, Australia, New Zealand, China and Singapore. Its collection and recycling services in Europe, Korea, and Japan are driven by legal requirements in those countries. However, its takeback service is not consistent product-wise in all countries where it offers such service. http://www.toshiba.co.jp/env/en/industry/resource3.htm

India

Toshiba's Indian website claims that as a global brand, Toshiba implements its environmental policy uniformly for all regions wherever it does business. However, there is hardly any information on its IPR position and voluntary take-back service on its Indian website. Toshiba's claim of environmental stewardship in India lacks substance as it does not illustrate definite steps on how it pursues such stewardship. http://toshiba-india.com/greenpc_environment.aspx

Wipro

Policy

This 'applying thought' Indian brand has stopped applying thought beyond a mere reference to producer responsibility for disposal of its branded e-waste. The company supports EPR

and, that too, only for disposal of e-waste. There is no committment on IPR or support for an on-going process for e-waste legislation steered by the industry association, MAIT.

However, Wipro has set up an extensive take-back service across India. Information on take-back is easily available for the customer on the webpage. A customer can register online for the collection of e-waste. Full contact details of 16 pick-up centers are provided for the collection of e-waste.

http://www.wipro.in/Products/greenpc/html/0002core.htm

Practice

Wipro has a good take-back service with 16 collection points geographically evenly spread across the country. Also, an on-line registration form is available for customers for easy access to the service. However, the service is not completely free. Company charges a logistics fee for collection and transportation of discarded products from the customer's address. However, it is contradicted by the staff at pick-up points, who deny imposition of any logistics charge for individual customers. The service is available for all types of customers - individual as well as corporate customers and covers all its products. The contact people at pick-up points are aware of company's policy on takeback service.

Zenith

Policy

This Indian company, although offering take-back and recycling services to its customers for the end-of-life products, provides no clue about its position on IPR. The company does not participate in the on-going process for legislation steered by the industry association MAIT.

Zenith has a recycling and conscious disposal service for its old & discarded desktops and notebooks. However, it is not clear if the service offered is free of cost. Further, it is also unclear whether this service is available all the time or it is season specific. Zenith provides an e-mail to its customers for contact but fails to provide detailed information. No contact address and telephone number are given for further enquiry. Also, no information on how the products are collected.

http://www.zenith-india.com/recycling.html

Practice

Take-back testing in India

No information was received from Zenith when contacted with specific queries.. Further investigation reveals that Zenith's takeback service is mostly buy-back and that it is season specific and limited to certain products.

Annexure 2

Details of staffs and representatives of Electronic Brands those who are contacted for testing of take-back service.

Brand	Person contacted	Address and Telephone number of person contacted	Mode of contact	Date
	Mr. Yadav	Acer India (Pvt) Ltd., Okhla Phase - I, New Delhi - 110 020 Tel: +91-11- 40568000,	Phone	JUNE 30, 2008
Acer	Ms. Vidhi	ACER service centerTel: 011-29840592	Phone	JUNE 30, 2008
Acer	Ms. Monica	Acer India (Pvt) Ltd., Okhla Phase - I, New Delhi - 110 020, Tel: +91-11- 40568000	Phone	JUNE 30, 2008
	e-Waste Coordinator	Acer India (Pvt) Ltd., 80 ft., Indiranagar, Bangalore-75	e-mail	JULY 30, 2008
Apple	Sales Representative	iWorld Business solutions, CG-01 Ansal Plaza, New Delhi	Personal Visit	JULY 11, 2008
Dell	Dell Recycling for Home customer	http://supportapj.dell.com/support/topics/topic.aspx/ap/shared/support/recycling/en/global_recycling?c=in&l=en&s=gen	e-mail	July 1, 2008
	Mr. Ashish	HCL ecosafe help desk (0120)- 2555219	Phone	JULY 3, 2008
HCL	Ms. Anubhuti	HCL ecosafe help desk (0120)- 2555219	Phone	JULY 4, 2008
	E-waste Recycling	http://pmo.hclinsys.com/ewaste/terms _asp	E-mail	JULY 12, 2008
Нр	Customer Care Executive	Maha Electronics Pvt. Ltd, Jayanagar, Bangalore	Personal Visit	JULY 9, 2008
	Ms. Manjula	Redington India Pvt. Ltd, Infantry Road, Bangalore	Personal visit	JULY 8, 2008,
	Mr. Sanjeev	Redington India Pvt. Ltd., S-3 Green Park Ext, New Delhi	Personal Visit	JULY11, 2008
LG Electronics	Mr. Sunil	Optima Mobiles (official collection point), 2nd Block, Rajajinagar, Bangalore - 560 010, Tel: 080 23131953	Phone and personal visit	JULY 1, 2008
	Mr. Harshit	Alliance Communication (official collection point), City Plaza, Jhotwara Road, Jaipur-16, Tel: +91-9351371549	Phone	JULY 1, 2008
	Mr. Subhash	Skylink (official collection point), Little Russel Street, Calcutta-700071, Tel: +91-9339791037	Phone	JULY 2, 2008
	Mr. Habilash	Zenicon Infoway (official collection point), M.G.Road, Cochin-15, Tel: 0484-2359511	Phone	JULY 2, 2008
	Ms. Shobha	A-one Services (Customer care Centre for TV) 60ft Service Road, Bangalore, Tel: 080-25202988	Phone	JULY 2, 2008
	S.V. Sirish	Pranav infocom, Jayanagar,	Personal visit	JULY 8, 2008

	1	Bangalore		
	Mr. Subash	Trishyiraya Recycling Pvt. India Ltd.,	Phone and e-	JULY 3, 2008
Lenovo	Wii. Odbasii	(Authorised recycler), 9840897125, subashwarrier@trishyiraya.com	mail	0021 0, 2000
	Mr. Prabhu Srinivasan	Country Manager, Trishyiraya Recycling Pvt. India Ltd., (Authorised recycler), email- prabhu@trishyiraya.com	E-mail	JULY 6, 2008
	Akram	Redington India Pvt. Ltd.,Infantry Road, Bangalore (Official Collection center)	Phone	JULY 4, 2008
	Receptionist	Bagmane Technological park, CV Raman Nagar, Bangalor (Official collection point and)	Personal Visit	JULY 9, 2008
Motorolo	Receptionist	Salapuria Supreme, Outer ring road, Bangalore (Official Collection center)	Personal Visit	JULY 9, 2008
Motorola	Mr. Somu	Essem communications, Jayanagar, Bangalore	Personal Visit	JULY 9, 2008
	Receptionist	Motorola Excellence Centre, Mehrauli-Gurgaon Road, Gurgaon (Official Collection Centre)	Personal Visit	JULY 11, 2008
	Service personnel	Redington India Pvt. Ltd., S-3 Green Park Ext, near Uphar cinema, New Delhi (Official Collection point)	Personal Visit	JULY 11, 2008
	Ms. Jessy	Edge com, Indra Nagar, Tipsundra, Bangalore	Personal Visit	JULY 8, 2008
	Ms. Kavita	Mend square, Residency Road, Bangalore	Personal Visit	JULY 9, 2008
	Customer Care Executive	A-78, Sector 2, Noida, UP	Personal Visit	JULY 10, 2008
		Gupta Associates, 55,GANDHI NAGAR, Ghaziabad, UP Tel:+91-9818091111 (Address is wrong)	Phone	JULY 11, 2008
	Customer Care Executive	S-10, Green park Ext, New Delhi	Personal Visit	JULY 11, 2008
	Mr. Gajanand	Cellular Clinic, plot no-B-32, Saheed Nagar, Bhubaneswar-751007, Phone: 67402547858	Phone	JULY 11, 2008
Nokia		Ganapati Mobile Bank, Usha Arcade Complex, , East Boring Canal Road, Patna, Bihar, Tel: 6122200579 (Tel No. is wrong)	Phone	JULY 14, 2008
		PODDAR TELECOM, Hari Om Tower, Circular Road, Ranchi, pin – 83401, Tel: 0651-3092000 (Tel No. is wrong)	Phone	JULY 14, 2008
	Ms. Asha	Numeric communication services, 1 Essel Towers, Bunts Hostel Circle, Mangalore – 575003, Tel: 0824- 4257611	Phone	JULY 15, 2008
	Customer Care Executive	Revanna's Nokia care, R.K. Plaza, Kuvemou Nagar,, Mysore-570023, Tel: 0821-4242211	Phone	JULY 15, 2008
	Mr. Pramod	Vardhman, 2/143 Suhag Nagar, Firozabad, UP Tel: +91-9927200131	Personal Visit	JULY 15, 2008

Panasonic	Repair Technician	IN Floatronico 47 Compar Arch	Danaga I Viait	11 11 1/ 0 0000
1	repair recriminan	J N Electronics, 17,Copper Arch, Infantry road, Bangalore	Personal Visit	JULY 8, 2008
	Ms. Seema	Digital Techno services, No. 65 Second Floor, Eswari Complex, Dr. Rajkumar Road, Rajajinagar, Bangalore Tel: 080- 23389405/23207100	Personal Visit	JULY 8, 2008
	Mr. Sufian Isharat, Manager-HR	Samsung India Electronics Pvt. Ltd (Factory), B-1, Sector-81, Phase-II, Noida-201305, Tel: +91-120- 40011900	Personal Visit	JULY 10, 2008
	Ms. Dhanayshree	Sony Ericsson call center 011-39011111	Phone	JULY 4, 2008
Sony	Customer care excutive	Ascentel, Rajajinagar, Bangalore	Personal Visit	JULY 8, 2008
Ericsson	Customer care excutive	Service Point, 4th block, Jayanagar, Bangalore	Personal Visit	JULY 9, 2008
	Customer care excutive	Shristi Services, 72/1, airport road, Domlur, Bangalore	Personal Visit	JULY 8, 2008
	Ms. Seema	Service center, 12th Main Indira Nagar, Bangalore-38 Phone: 25211050	Phone	JULY 3, 2008
,	Mr. Praveen and Mr. Ahmed	Sony world Jayanagar, Tel: 080- 41210042/3 and 9845199706	Phone	JULY 3, 2008
	Customer Care Executive	1760, Dr. Rajkumar Road, Rajajinagar, Bangalore	Personal Visit	JULY 8, 2008
Toshiba	Mr. Manuj	HCL Infosystems Limited , Indira Nagar, Bangalore Tel: + 91-80-25211074	Phone	JULY 4, 2008
	Mr. Narayan	1/1,Langford road, Langford town, Bangalore	Personal Visit	JULY 9, 2008
·	Mr. Somasundaram D. (Local contact person for E-waste collection in Banglore)	Wipro Ltd., 6C- Hyland Industrial Estate, Hosur Road, Bangalore 560 068, Tel: +91 80 2736324 (Ext-241)	Phone	JUNE 30, 2008
	Mr. Surinder Singh,	Area Logistics Manager, Wipro, New Delhi, Tel: 011-32472687 e-mail: surinder.singh@wipro.com	Phone	JULY 1, 2008
	e-waste registration	http://www.wipro.in/Products/html/01E WRegister.htm	e-mail	JULY 12, 2008
Zenith	Zenith Recycling	info@zenith.com	E-mail	JUNE 30, 2008