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E-WASTE IN INDIA – NEED OF CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT

As the global market of electrical and electronic goods has grown exponentially, managing e-waste has become an important target as it is posing a threat to both environment and health. The purpose of this paper is to provide a review of the e-waste problem particularly in India and to put forward the concept of corporate social responsibility to counter the problem of growing e-Waste. This articles reviews past studies on e-waste and corporate social responsibility and studies the role of CSR in managing e-waste.

KEYWORDS

Corporate social responsibility, Environment, E-waste, Recycling.

INTRODUCTION

Electronic gadgets have penetrated every aspect of our lives and most of us do not think about what happens to these gadgets when we discard or upgrade. The use of electronic devices has proliferated in recent decades and proportionally the quantity disposed electronic devices is also growing rapidly throughout the world. E-waste is an emerging problem given the volumes of e-waste being generated and the content of both toxic and valuable materials in them [1-4].

This kind of e-waste is posing a serious challenge in disposal and recycling to both developed and developing countries. While some of the developed and developing countries have most advanced high-tech software and hardware developing facilities, India's recycling sector is yet to reach that height. The dumping of e-waste into India from developed countries has made e-waste management an issue of environment and health concern (5,6,1,7].

The motivation behind the initiation of corporate social responsibility (CSR) has been the damage to the society because of industrial activities. CSR is a way for companies to benefit themselves while also benefiting the society. CSR is, therefore, a management approach that takes into consideration an integrated set of indicators that map the firm's impact and reciprocal effects within the realm of its economic, societal and environmental existence.

This review article provides a concise overview of e-waste, its environmental and health hazards, and the role of corporates in managing e-waste.

CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR) is a concept whereby companies integrate social, environmental and health concerns in their business strategy and operations and in their interactions with stakeholders on a voluntary basis. The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time [8].

Awareness of Corporate Social Responsibility is not a new development. Concern for society and environment can be traced back to the beginning of time. During the course of history awareness of social and environmental responsibility developed from individual social and environmental concerns and led to the perception that also collectives, such as profit-oriented businesses, need to partake in responsible activities that do not necessary produce profits visible in the short run [9].

Even though CSR is not a completely new topic, an increased public awareness regarding social responsibility of companies started to develop during the late 50's and early 60's of the 20th century. Especially in large companies and due to globalization, there is increased pressure on companies and managers to act ethically and socially responsible. Through the internet, television and press, most customers are aware of issues such as child labor, exploitation of workers, destruction of the environment, etc. As a result, pressure from different stakeholders along with massive media coverage has forced many companies to take action in order to protect their public reputation. [9].

E-WASTE

Electronic waste (e-waste) is the group of electronic products nearing or at the end of its useful life. E-waste in short is a generic term embracing various forms of electric and electronic equipment that have ceased to be of any value to their owners. Puckett et al. define E-waste as "a broad and growing range of electronic devices ranging from large household devices such as refrigerators, air conditions, cell phones, personal stereos, and consumer electronics to computers which have been discarded by their users". According to Sinha-Khetriwal [6], "E-waste can be classified as any electrical powered appliance that has reached its end-of-life". As there does not seem to be a standard definition for E-waste, the definition offered by Sinha-Khetriwal [6] can be adopted for this paper. It is comprised of discarded computers, television sets, mobile phones, microwave ovens and other such appliances that are past their useful lives.

The information technology (IT) industry in India has been one of the major drivers of change in the economy in the last decade and has contributed significantly to the digital revolution. Penetration of personal computers and new models of mobile phones in India has increased drastically in the recent years. New electronic gadgets and appliances have infiltrated every aspect of our daily lives, providing our society with more comfort, health and security and with easy information acquisition and exchange. India has generated about 0.2 million tons of E-waste in 2006 and in 2010 it is about 0.4 million tons and at present the quantum is increasing rapidly. Studies so far reveal that the total e-waste generation in India from both households and corporate will reach 0.5 to 0.6 million tons by 2013–2014 [5].

Quantity of E-waste generated and the content of toxic and valuable materials, it has become an emerging problem throughout the world. An estimated 30,000 to 40,000 computers become obsolete every year from the IT industry in Bangalore alone. Home to more than 1200 foreign and domestic technology firms, Bangalore figures prominently in the danger list of cities faced with an e - waste hazard. As much as 1000 tons of plastics, 300 tons of lead, 0.23 ton of mercury, 43 tons of nickel and 350 tons of copper are annually generated in Bangalore. While on the basis of scrap handled by the Delhi-based scrap dealers, their total number of PCs meant for dismantling would be around 15,000 per year. This figure does not include PCs handled by large dealers who get scraps from foreign sources. Mumbai, the financial nerve-center of India,

alone throws away 19,000 to 20,000 tons of electronic waste a month, excluding the large e-waste it imports from developing nations through its port [6].

Electronic products are a complex mixture of several hundred tiny components, many of which contain deadly chemicals. These chemicals are a strain on human health and the environment. Most of the components in electronic devices contain lead, cadmium, mercury, polyvinyl chloride (PVC), brominated flame retardants (BFRs), chromium, beryllium etc. TVs, video and computer monitors use CRTs, which have significant amounts of lead and the long term exposure to these substances can damage the nervous system, kidney and bones and the reproductive and endocrine systems and some of them are carcinogenic. These e-wastes will have long lasting effects on the environment, when improperly disposed with domestic waste, without any controls, can contaminate the soil, water and air [10].

Recycling faces a number of challenges, including dealing with hazardous materials. Furthermore, at present no technology exists for recycling certain e-waste in an environmentally friendly manner. If e-waste is disposed in local landfills, the hazardous materials in e-waste can leach out from the landfills into groundwater and streams, and if the plastic components are burned, dioxins are emitted into the air**.** Moreover, it is estimated that 50–80 percent of the E-waste collected for recycling in the US is actually exported to developing countries, even though it is illegal in most of those countries to accept this toxic waste stream. Much of this illegally traded waste is going to the informal recycling sectors in many Asian and West African countries, where it is dismantled or disposed of using very primitive and toxic technologies [7].

There are only two formal recyclers one at Chennai and another in Bangalore for the whole of South India and one in western India. Currently, there are no formal recyclers operating in the north or the east. Over 1 million poor people in India are involved in the manual recycling operations of E-waste and most of the people working in this recycling sector are the urban poor with very low literacy levels and hence very little awareness regarding the hazards of e-waste toxins. There are a sizeable number of women and children who are engaged in these activities and they are more vulnerable to the hazards of this waste.

In India, most of the recycling happens in the informal sector where poor people tear apart the different components with their bare hands and without wearing any safety gear. In many such yards people are using cable waste as fuel to cook food. In fact, people are being exposed to toxins 24 hours a day as they live, cook and sleep in the same place where waste being recycled. Though E-waste is being recycled in all metros in India, Delhi is where the illegal and dangerous practices of recycling are adopted. India has become the dumping ground of all kinds of waste from the developed countries. A report from Manufacturers' Association for Information Technology (MAIT) indicates that 50,000 tonnes are being imported every year [11].

E-WASTE AND CORPORATE SOCIAL RESPONSIBILITY

Waste of all sort put together is a major cause of Global Warming and electronic waste (e-waste) is one of the biggest contributor. It is because of electronic revolution the Globe has become a Village. Therefore, there should be a practical global solution to this problem of e-waste [12].

E-waste is mainly consisting of those ingredients which are of non bio-degradable in nature and hence they do not mix with soil and therefore they need an attentive treatment before they spoil our environment further. Nature might take very long to bring these commodities back in to their elementary form and by then we would have spoiled our ecological balance to a great level and hence need a greater attention[13].

It has been noticed that in the developed nations there is a tremendous generation of e-waste because of their affordability and requirement while at the end of developing nations there are resources to deal with such waste at lower the costs and hence a proper combination of these complimentary elements should be developed with a specific objective of recycling by the proper facilities but with a check on unauthorized dumping in any form.

Every day 8,500 mobile handsets, 3,000 PCs and 5,500 televisions are trashed every day in India [14]. Only 5% of the total electronic waste in India is recycled; the remaining e-waste ends up in landfills and pollutes the environment. The problem lies in the fact that e-waste contains toxic components that need to be recycled and disposed in an environmentally responsible and safe manner to render them harmless to the environment. One should not worry about the e-waste generation but really need to look at the methodology of handling e-waste, protecting health of the workers and other stakeholders, environment, & ecological

balance and commodities. Such responsibility can be taken over by corporates by large since they have more resources than others like NGOs and also help them cover for the damage caused to the society during their industrial process.

Keeping in view the intensity of the e-waste, Companies Bill 2012 introduced in India could prove to be quite an effective push for environmentally sustainable e-waste management in India. The key aspect of the new law is that it makes it mandatory for corporations to spend 2% of the net profits on CSR activities. The legislation has defined nine activities that meet the CSR requirement – one of these nine is 'ensuring environmental sustainability'. It is mandatory for companies that meet any one of these criteria must spend 2% of their average profits over the last three years on CSR activities. The companies are required to be audited every year for these activities and will face penalties in the event of non-compliance.

One of the ways companies can work towards environmental sustainability is through environmentally responsible e-waste recycling, by ensuring that they recycle and dispose their old computers and other broken down or outdated electronics and equipment with registered recyclers who have the technology to process e-waste responsibly.

Organizations and companies who deploy and/or regularly upgrade their computer systems and electronic appliances can now aim their CSR activities towards e-waste recycling. Companies in the IT sector and manufacturers of consumer durable electronics can play a major role, as they are the largest producers of electronic waste, and as part of the mandatory CSR activities, these companies can ensure that any form of e-waste emanating from their organizations is recycled in a proper and safe manner. Recycling electronic e-waste in an environmentally safe manner would ensure that all toxic electronic components are treated carefully, and recycled and reused without causing any harm to the environment.

In order to ensure that an organization's e-waste recycling initiative complies with its CSR objectives, it must make sure that they recycle their e-waste with authorized and registered e-waste recyclers who are equipped with the technology to process and handle e-waste in an environmentally friendly manner.

CONCLUSION

Corporate Social Responsibility has become a core issue for many small and large businesses. Most of these companies know the information about their environmental, social impact or both. They should realize the impact e-waste on society and also benefits from being socially responsible. Companies need to chalk a plan of forward integration of reutilizing almost all the commodities recovered from the e-waste and make sure that in the interest of environment, ecology and health. All the corporate should work as an eco-socio friend of the society, over and above corporate social responsibility.

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