Chapter 23
The Electronic Obsolescence as an Opportunity for Social Entrepreneurship: The Case of EEE in Manizales, Colombia

Diego Lopez Cardona
Universidad de Manizales, Colombia

Rocío del S. Tabares Hoyos
Universidad de Manizales, Colombia

ABSTRACT
The chapter contains the concepts of Social Entrepreneurship, Planned and Perceived Obsolescence, Corporate Social Responsibility, the legal framework for Electrical and Electronic Equipment (EEE) waste, and Reverse Logistics, as theoretical support from different authors. Applied to Manizales, Colombia, the study was conducted with a quantitative and qualitative approach. The information was collected through surveys and interviews with 26 entrepreneurs and 331 households’ consumers to know the type of appliances, how they buy, change and use them, and the chain of intermediaries. With planned and perceived obsolescence, products lose their life in a short time, are dumped as Waste of Electrical and Electronic Equipment (WEEE), and collected by people of low educational and economic level that survive in precarious conditions. Due to these results and conclusions, we offer in the chapter the opportunity to generate proposals for their inclusion and social development.

1. INTRODUCTION
In Colombia, due to the few public policies related to environmental management, and specifically the control of manufacturing, distribution and sales of electrical and electronic equipment (EEE), there have been implementing market strategies concerning to Planned and Perceived Obsolescence\(^1\) (Valquíria and Bonifacio, 2013) that reduce the time of use by consumers and therefore the acceleration occurs in its abandoned as an useful object. Having completed its life cycle, the Waste of Electrical and Electronic Equipment (WEEE), and collected by people of low educational and economic level they survive in precarious conditions. Due to these results and conclusions, we offer in the chapter the opportunity to generate proposals for their inclusion and social development.

DOI: 10.4018/978-1-5225-0097-1.ch023
Electronic Equipment (WEEE), the vast majority are thrown in the trash at the mercy of the collector car where they are mixed with other organic, building, metalworking wastes, polluting the air, water and soil, imposing great challenges for society and the authorities that manage and regulate, given the large volume of waste of EEE, which mostly get tossed.

This chapter is intended to address from several authors the concepts of social entrepreneurship as an opportunity for social inclusion of those who collect, recycle and reuse products. The problem lies in the few opportunities offered by the agents involved in the collection process, and belonging to a parasitic intermediation chain, using people with low educational level, with few job opportunities and many social problems, being most individuals who are not associated or included in a program of social inclusion. Similarly the concepts of planned and perceived obsolescence as trading strategies that result in businesses and industries engaged in selling products in different versions to force change, so that the user feels an unconsciously need to have analyzed this product that every day gets older in relation to new products launched on the market.

Selective harvesting strategies and environmental management of waste computers and-or peripherals, as well as EEE just beginning to be regulated, in order to prevent and control environmental degradation. These efforts simply suggest to the producers and trading companies, to establish collection programs that produce few results, at least in the city of Manizales, as are programs that are barely in their implementation and dissemination. In the city it has a collection logistics based on routes established by the company that has a monopoly of management of waste. Each tour does not only the vehicle with company employees, but also people of low educational level, seeking, as the carriage advances, select different types of waste, such as plastics, cardboard, heavy metals and some high-volume WEEE and then classify its parts. These informal workers take them to a collection center, according to their specialty. There are intermediaries who buy according to the law of supply and demand. This intermediary is responsible to sell the volume of raw material to companies.

Therefore, based on the potential of social entrepreneurship as an opportunity to form working groups with people who collect WEEE and training them in the extraction of precious metals which are manufactured, we can establish a project of social innovation grouping this community with low level of education, low income, health conditions and deplorable housing, and we can step in improving their quality of life. WEEE recycling becomes an opportunity for social entrepreneurship.

The case study presented responds to an inventory of consumption of electrical and electronic equipment (EEE) in the city of Manizales. It was made from conducting surveys to recycling companies (26) and consumers (331), which allowed knowing the type of EEE used in homes, the life, the way of acquisition, the frequency with which they change the reasons for that change and the final repository once it has completed its life cycle.

With the results we hope to contribute with alternative solutions to the problem of the current economic system of production that does not conform at all to harmony and balance that nature requires. Therefore, to counter planned obsolescence, the key will be the commitment and responsibility with which the laws of manufacture of each product are met, of course, without neglecting corporate growth by implementing new business models to rectify this phenomenon.