

Preston Hudlow
Professor Rekha Gupta
12816
Group 5

A. Thesis

Raising awareness about proper recycling techniques for electronic waste is essential to minimize health risks for workers and environmental damage. With the constant advancement of technology, the promotion of practical and eco-friendly solutions is crucial in reducing environmental degradation and creating a sustainable future.

Introduction: Currently, almost everyone has some form of electronic device and almost every day there is a better new version that is demanded by the consumer. This entices companies to rapidly expand and improve their electronics to keep up. This creates a problem when it comes to recycling and disposal. No matter the size it could potentially contain hazardous materials which if not disposed of correctly could produce negative side effects for people and the environment. Holding accountability and creating laws to restrict will help reduce the impact of these hazardous materials. Even with these laws, informal and illegal methods are used, creating an issue globally. E-waste is a rising problem around the world, so it is important to take it seriously to ensure a safe and sustainable future.

B. Full-Sentence Outline

IV. There are different regulations in place to minimize the negative effects of e-waste and it is important to keep awareness to provide a healthy and sustainable future.

- a. There are many different regulations in place all over the world to help combat the negative effects of e-waste.
 1. The EPR policy is considered by OECD as well as the EU as one of the most promising means to combat the increasing generation of waste and pollution (Nnorom 2008).
 2. With this policy approach, the government mandates that manufacturers, importers and/or retailer take-back products at the end of the products useful life (Nnorom 2008).
 3. Traditionally, recycling and recovering metals from e-wastes are laborious and undesirable in recent days. However, new techniques are introduced which are efficient as well as cost-effective (Chatterjee 2017)
- b. Even with the attempts of proper techniques there are still many issues when it comes to disposal and recycling electronic waste.
 1. Cambodia, India and Malaysia are observed to follow no such rule and regulations to overcome the e-waste problems faced. This may be due to the reason that the problem is recently faced in India than in other countries. MoEF handles the issues related to e-wastes in India, but there are no regulations or laws specifying the e-wastes difficulties yet (Chatterjee 2017).
 2. Samples were collected from open burning sites, disposal area of e-wastes and lagoons nearby open burning areas. High concentration of copper and lead in the samples of open burning sites were found followed by zinc, manganese and antimony (Chatterjee 2017).
 3. The unbridled deposition and processing of electronics waste leads to heavy metals and toxic chemicals being released in the

environment. This affects not only soil and water but also the plants and animals to a large extent. (Chatterjee 2017).

C. ODU Library's -Keyword Title Search

1. Search Terms

- E-waste
- Laws and E-waste
- E-waste disposal methods
- Formal e-waste recycling
- E-waste awareness
- E-waste trade

2. Rejected Article

- **International Labour, O. (2015). Labour, human health and environmental dimensions of e.waste management in China. [e-book].**
- This book focuses on the human health and environmental aspects of e-waste management. It is an analysis of different sectors and policies within China alone.
- Since our topic is the negative effects and awareness of electronic waste this source was rejected as it gives a narrow focus on China alone.

D. Journal Database Search #1

1. Specific Journal Database

Environment Complete

2. Subject Headings

E-waste Management

Environmental Protection

3. Search Terminology

a. Initial Keyword search: E-waste

-Narrowed by these subject headings: environmental protection

b. Second keyword search: E-waste and laws and regulations.

-Narrowed by these subject headings: e-waste management

4. Rejected article

- John, R. A., Okorhi, O. J., & Uhumwangho, R. (2023). Management of E-Waste Emanating from Use of Solar Photovoltaic Powered Systems at End-of-Life in the Niger Delta Area, Nigeria [Article]. *Journal of Applied Sciences & Environmental Management*, 27(8), 1719-1725. <https://doi.org/10.4314/jasem.v27i8.15>
- This article deals with decommissioned solar photovoltaic power system devices that are part of waste management. Specifically, it focuses on this type of waste management strategies that are in place for solar PV power systems.
- This source was rejected due to its narrowed view on only one type of pollution emission versus more of a broad aspect of e-waste in general. It lacks more details and background of e-waste pollution or policies. With this narrowed focus it would not be a good source for my topic within this research paper.

E. Journal Database Search #2

1. Specific Journal Database

2. Environment Complete

3. Subject Headings

Waste recycling

Sustainable development

Developed countries

4. Search Terminology

a. Initial keyword search: E-waste disposal methods

-Narrowed by these subject headings: Environmental monitoring

b. Second keyword search: E-waste practices

-Narrowed by these subject headings: recycling or decision making or developed countries

5. Accepted article.

- Chatterjee, A., & Abraham, J. (2017). Efficient management of e-wastes [Article]. *International Journal of Environmental Science & Technology (IJEST)*, 14(1), 211-222. <https://doi.org/10.1007/s13762-016-1072-6>
- This article includes a broad spectrum of electronic waste management policies and problems. The text includes numerous countries and includes information on how they are collectively dealing with the issues of e-waste.
- This article was accepted as it gives the correct information needed for our research topic. Not only does it include issues, but it helps bring awareness and shows policies at the global level. With this, it is broad enough to get the right information but also narrow as it's focused within my topic area for research.

F. Google Scholar-Search

1. Search Terminology

-electronic waste and international laws

2. When searching electronic waste and international laws in Google Scholar I was able to obtain the full text of the article without any issues.

3. Accepted Article

- Nnorom, I. C., & Osibanjo, O. (2008). Overview of electronic waste (e-waste) management practices and legislations, and their poor applications in the developing countries, *Resources, Conservation and Recycling*,. In (Vol. 52, Issue 6, pp. 843-858). <https://www.sciencedirect.com/science/article/pii/S0921344908000165>: ScienceDirect.
- This article includes e-waste management practices and legislation within developing countries. It includes different methods used and how efficient these practices are within the process of e-waste.
- The article was accepted as it fits into my research topic perfectly. It talks about numerous accountability practices and raises awareness on the issue. It also includes different governmental policies which show how globally this issue is being addressed.

References

- Chatterjee, A., & Abraham, J. (2017). Efficient management of e-wastes [Article]. *International Journal of Environmental Science & Technology (IJEST)*, 14(1), 211-222. <https://doi.org/10.1007/s13762-016-1072-6>
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