

Social Enterprise Business Models For Waste Electrical and Electronic Equipment Systems



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INTRODUCTION

The popularization of the social economy is seen by the increasing desire of corporations to make a positive impact through social responsibility commitments. A social enterprise operates within the social economy with the purpose of pursuing social issues rather than profit. Waste electrical and electronic equipment (WEEE) is one of the fastest growing global waste streams as increasing products have electrical components. Insufficient waste management capacity has led to less than 20% of WEEE being properly disposed of.¹ When WEEE is improperly disposed of and sent to landfills, health and environmental hazards arise. Currently, landfills in Ontario are projected to reach capacity within the next decade.² With legislation changes, such as implementing extended producer responsibility and global WEEE import bans, sustainable solutions are needed to address this issue. WEEE social enterprises are currently community level initiatives working to enhance social capital and divert WEEE from landfills. The potential impact of these successful initiatives when scaled could improve current waste management systems.

RESEARCH QUESTION AND OBJECTIVES

What sustainability impacts can social enterprise business models have on waste electrical and electronic equipment systems in Ontario?

- How can best practices and successful attributes of WEEE social enterprises be applied to Ontario's evolving waste management system?
- How can social enterprises help achieve developmental outcomes?

METHODOLOGY

- A literature review was performed where information was sourced from peer-reviewed academic journal articles and books. Supplementary information was sourced from websites and grey literature.
- Five categories of search terms include: social economy and social enterprises, waste electrical and electronic equipment, waste management systems, sustainable development.
- Publication dates ranged from 1987 to 2020.
- A title scan of 332 articles, then an abstract scan of 167 articles was narrowed down to 64 articles directly used to inform this research.
- Four case studies of WEEE social enterprises were chosen by their country's common law system equivalent to the Canadian legal system.
- Sustainability systems approach - social, economic, environmental lens was used when assessing the information and drawing conclusions

FINDINGS

No standardized definition or approach for social enterprises

- Generally defined as prioritizing social issues over economic gains but there were conflicting details such as being a non-profit organization.^{3,4}
- In Europe, 68% of countries have an official or unofficial but widely accepted definition of social enterprises.⁵
- In Canada, provinces and territories can have their own social enterprise rules. Independent funding opportunities exist. A fragmented approach is taken and there has yet to be a national strategy.⁶

Uncertain state of WEEE

- Definition of what is considered WEEE varies by region.
- Increased awareness of detrimental health and environmental hazards have increased WEEE import bans.^{7,8,9,10}
- Unclear transition from the wind down of the Ontario Electronic Stewardship through the Waste Diversion Transition Act to the Resource Recovery and Circular Economy Act (RRCEA).

Social enterprises used for regional development

- Include benefits such as reducing social inequality, promoting environmental sustainability, encouraging inclusive government and governance, and recognizing cultural diversity.¹¹
- There remains no consensus for how sustainable regional development should be achieved.¹²

Case Studies for WEEE Social Enterprises

Social Enterprise	Location
Free Geek	Toronto, Ontario, Canada
Free Geek	Portland, Oregon, USA
Substation 33	Kingston, Queensland, Australia
Haven Recycle	Glasgow, Scotland, UK

There was no single pathway for success as WEEE social enterprises depend on numerous factors such as location, funding, community awareness and regulations to operate.

WEEE social enterprises were registered as non-profits even if a social enterprise business model legislation was available in the region.

- Non-profit models have established resources which newer legislation models may not have. Business model type did not restrict success.

All social enterprises relied on volunteers with the focus on providing opportunities for disadvantaged individuals. Once established then paid employees were considered.

All cases involved an education and reskilling component to equip marginalized individuals with technology related skills.

- Focus on social and occupational integration through an economic activity for socially marginalized groups such as the disabled or ex-convicts.^{13,14}

DISCUSSION

Business model type does not restrict achievements. The social enterprise must consider numerous factors of the system such as location and culture in which the organization operates within.

Social enterprises are connectors to increase collaboration between siloed sectors and bridge systemic barriers.

Social enterprises are a viable solution for sustainability impacts as they focus on addressing social issues resulting in increased social capital and mobility. This results in long term secondary benefits for the environment and the economy.

Policy Implications

- Enable partnerships to allow social enterprises to integrate into an established system (e.g. contract work)
- WEEE social enterprises experienced in this space can translate knowledge to producers soon to be responsible
- Developing policies that implement the current RRCEA, to maximize benefits of solving multiple regional issues simultaneously will be important for contributing to larger circular economy goals.

Challenges

- Lack of accurate and up to date Canadian WEEE information
- Lack of standardized definition and policies that are subject to changes - e.g. Ontario had a social enterprise strategy that failed to be implemented due to changes in government.
- Due to the underdeveloped waste reuse and recycling sector, there are opportunities for WEEE social enterprises to innovate but also limitations to the market scope.¹⁵

CONCLUSION

Social enterprises have an impact on environmental, economic and social sustainability for regional development. Waste issue will increase in importance with time. With proper planning and policies implemented, this model can be used beyond waste management systems to address multiple issues simultaneously.

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