



A Business Model for Sustainability: Refurbished Home Appliances and Its Environmental, Social and Economic Value

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Background

Electric and electronic waste generated by disposed home appliances are often **thrown away**. Despite of the conditions in which the components are in. What's being thrown away is for the most part of value. For example, the metals used for the components are **valuable and rare**. As the organization Wasgoed.com foresees a future in which there will be a **lack of mechanics**, a **local refurbishment centre** could act upon both problems.

Objective

The objective of this research was to explore what **business model** is suitable for such initiative. Additionally exploring the **environmental, social, and economic value** such initiative bear. This is specifically for the **region Leeuwarden** as the organization is located there.

Introduction

So, the question remains what business components are required for a sustainable business model of a refurbished centre? Therefore, a research question I see fit for this particular business case is: **"Which components are required to be modified for a local refurbishment initiative by Wasgoed.com to enable environmental, social, and economic value creation?"** Literature have shown that the circular economy itself contains ambiguity: There is no universal definition for what a **circular economy** looks like. Not only is this definition not clearly defined. It appears that definition of **refurbishment** is not clear either. Multiple definitions are being used interchangeable resulting in confusions for both producers and consumers. Additionally, literature have provided examples of sustainable business models based on creating value from waste to create the preferred **closed loop system**.

Literature

- There is no universal definition for **circular economy and refurbished products**
- **Valuable materials** are being wasted while often components of such appliances can be reused
- **Open loop recycling** is less preferred since it is equal to **downcycling**
- **Closed loop recycling = usage of secondary raw material** is preferred method for implementation of circular activities
- **Social enterprises** have no universal measuring tool for their performance: **how** should it then be measured?
- Business models that **targets life cycle improvements** are needed to support the implementation of circular activities
- Consumers can adopt a new behaviour if **three elements** (ability, motivation, and trigger) are present in order to drive them to adopt the suggested behaviour

Methods

The data will be gathered through **conducting semi-structured interviews with stakeholders**. In other words, it is a **qualitative** research. Ultimately, the participants consisted of the municipality of Leeuwarden, a local network organization in circular entrepreneurship "Circular Friesland", sustainable purchaser of a public domain, provincial policy advisor circular economy, and a governor of the province Friesland. Their input provides business components needed for such initiative to be realized. The data is then further enriched with insights from possible consumers what factors will trigger their behaviour to consider purchasing refurbished appliances.

Results

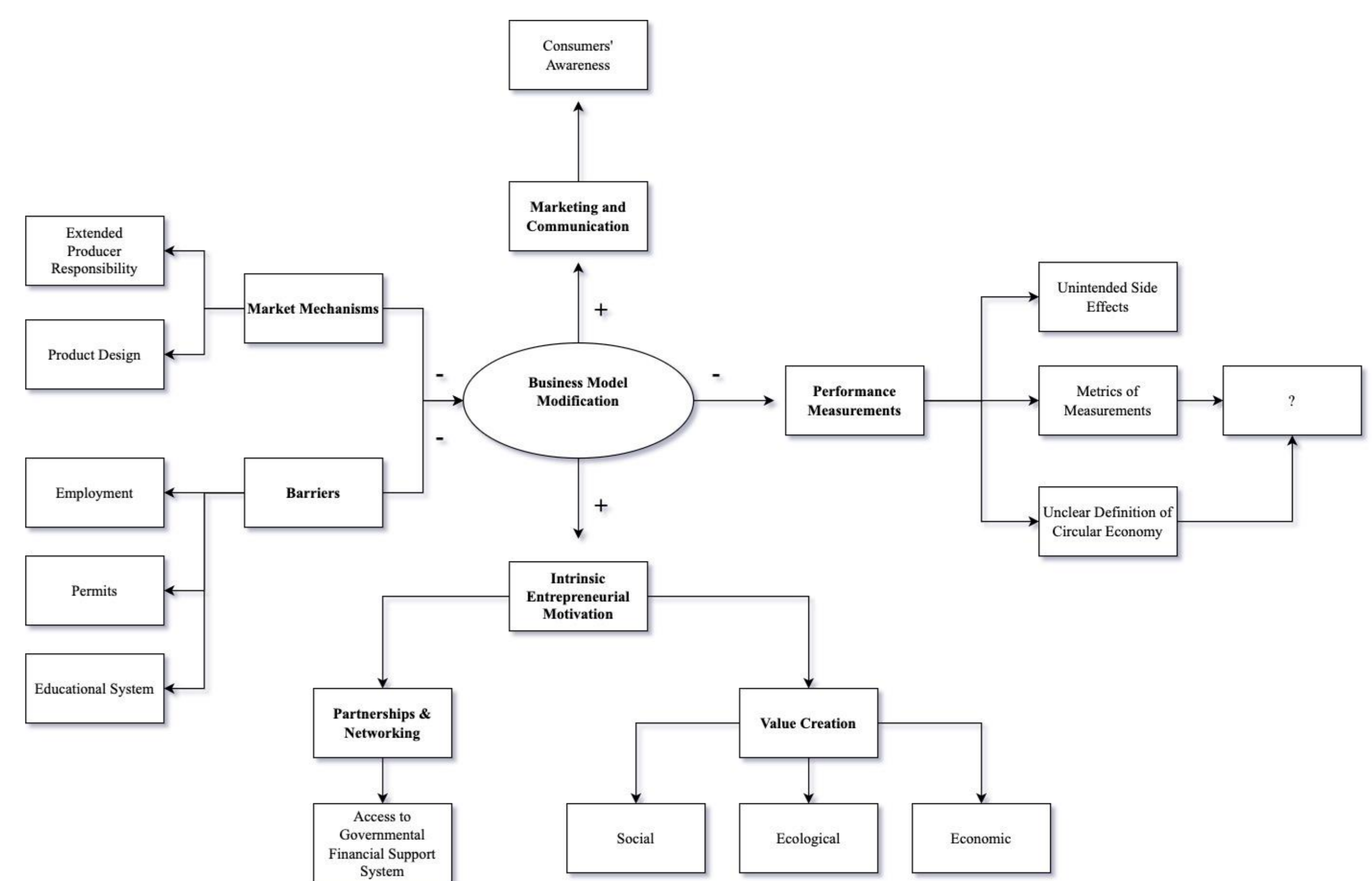


Figure 1. Business Components and Their Effects to the Business Model of Wasgoed.com

- **Barriers and Market Mechanisms** have a negative effect since it is out of reach of the organization
- **Intrinsic Entrepreneurial Motivation** can lead to positive key performance index of the organization
- **Performance Measurements** are unclear and should be adapted to the organizations' mission and vision
- **Marketing and Communication** can result into a positive consumer behaviour of adopting refurbished home appliances

Conclusions

- **Chain partners** are required to be able to acquire governmental financial support
- **Environmental value creation** is created by extending the life cycle
- **Social value creation** is created by job creation allowing those with a distance to the labour market to fulfil a position and loss of social fulfilment is being reduced
- **Economic value creation** is achieved by a local creation and the reduction of social benefits by job fulfilment