

TOWARDS A SUSTAINABLE BUSINESS MODEL INNOVATION FOR A CIRCULAR ECONOMY – THE CASE PLASTIC SHOPPING BAG COLLECTION AND RECYCLING SYSTEM IN STOCKHOLM

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Abstract

Lately, the concept of circular economy - as an economic strategy to transform the current predominantly linear system of production and consumption in to a circular one - has been popularised in both developed and developing economies. From an environmental perspective, circular economy proposes an improved environmental protection as well as economic incentives through new approaches to product and system design prolonging the products' lifetimes. Recent research on circular economy has highlighted a lack of the necessary infrastructure to support the reuse or recycling of post-consumer discards. Further, current established business models practices are also not compatible with the upcoming circular economy. In current predominantly linear production and consumption systems, various products end-up in mixed-waste streams and are often managed through incineration and/or landfilling. This considerably reduces the longevity of embedded physical resources in the products (such as energy and materials). In this study, a business model for a separate collection and recycling of plastic shopping bags in Stockholm is analysed. The study: (1) investigates the potential environmental and social benefits of, if any, the proposed separate collection and recycling system over the existing system; and (2) explores the social, legal, financial and other barriers to such a business model to aspire towards a circular economy. A preliminary investigation of the proposed business model highlights a great potential to improve the longevity of other plastic resources in society through a similar business model.

Keywords

Sustainable business; plastic packaging; Shopping bags; Circular economy; Recycling