SUSTAINABLE AIRLINE WASTE MANAGEMENT: A CASE STUDY OF AIR NEW ZEALAND'S WASTE MANAGEMENT PROGRAMS AND STRATEGIES

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Abstract

Waste management and waste disposal are now regarded as being amongst the most significant issues in the environmental management of the global airline industry. Consequently, airlines are now making substantial efforts to improve their waste management and reduce waste generation. Using an instrumental case study research approach, this study examines Air New Zealand's environmentally sustainable waste management programs and strategies. Air New Zealand launched its "Project Green" waste program in 2017. Since its inception, the "Project Green" waste management program together with other waste-related strategies have enabled the airline to mitigate the environmental impact of its annual wastes, especially those disposed to landfill. Air Each year, Air New Zealand generates a heterogeneous range of organic and in-flight service wastes. A major challenge confronted by the airline, in reducing waste to landfill, is the apparent shortage of recycling and composting infrastructure available for the airline to send its waste material to. More robust infrastructure across New Zealand would assist Air New Zealand to keep compostable and recyclable waste out of landfills.

Keywords: *airlines, Air New Zealand, case study, recycling, re-used wastes, sustainable waste management, waste to landfill.*

1. Introduction

Environmental sustainability is viewed as being a critical element of sustainable development. Environmental considerations in relation to waste have become increasingly important due to population growth and the increased production of a wide variety of products (Erickson, 2016). Furthermore, future limitations on the availability of selected resources underpins the requirement for increased material efficiency. In addition, in a climate-constrained world the impact of resource use on greenhouse gas emissions needs to be significantly minimized. Waste management is thus regarded as the key to achieving sustainable resource management (Corsten, 2013).

2. Background

Waste is produced from industrial activities, which is frequently directly associated with a firm's production or the waste is generated at the end of the life cycle of certain products (Pharino, 2017). The waste management hierarchy is as follows: reduce, re-use, recycle, recovery and disposal (Figure 1) (Davies, 2016). This means that in the waste management hierarchy, reducing waste should be the primary objective of a company (Baxter, 2020).

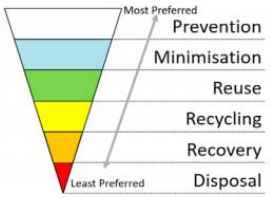

Fig. 1.
The Waste Management Hierarchy
Source: adapted from European Commission (2019)

3. Research Metodology

The research approach underpinning this study was based on an instrumental case study approach. Data for the study was obtained from a range of documents: Air New Zealand's annual sustainability reports, Air New Zealand's annual reports, and media releases, airline industry press articles, and company materials available on the internet. These documents provided the sources of the study's case evidence. An exhaustive source of the leading air transport and waste-related journals and magazines was also conducted. The study also included a search of the SCOPUS and Google Scholar databases.

4. Results

Prior to the implementation of the "Project Green" waste management program, New Zealand's Biosecurity regulations required any unopened food left over from international flights to be disposed by landfill to be burned or buried (Creedy, 2017). One of the key benefits for Air New Zealand from its "Project Green" waste management program is that the airline is achieving cost savings by not biosecurity treating the products and then being required to pay the applicable landfill charges. A further benefit has been that of staff engagement (Bradley, 2019).

5. Conclusions

The "Project Green waste management program has enabled 40 Air New Zealand inflight products, that were previously disposed by landfill due to biosecurity controls, to be reclassified so that these items could be reused on future flights if removed from an aircraft sealed and untouched. Products approved under the scheme include sealed beverages and snacks (for example, cans of soft drink, packets of cookies, boxes of tea, packets of coffee and sugar sachets). Since its inception, Air New Zealand's "Project Green" waste management program has been implemented in Auckland, Christchurch, and Wellington in New Zealand, as well as at Los Angeles, California. It is envisaged that the program will be implemented in Chicago, Houston, and San Francisco during 2020. Air New Zealand also works very closely with Auckland International Airport's waste management contractor. This collaborative relationship has enabled Air New Zealand to re-use in-flight products on subsequent flights. (Baxter, 2020)

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