

Food waste prevention in the hospitality and food service sector in Greece

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Abstract According to the United Nations Food and Agriculture Organization (FAO, 2014), almost one third of food (approximately 1.3 billion tonnes per year) produced all over the world for human consumption is spoiled or wasted. Food loss and waste cost the world about \$1trillion a year. In particular, in the hospitality and food sector in Greece, an estimated 300,000 tonnes of food is wasted every year (Kaysenet al., 2012).

In this paper, the food waste management practices of the hospitality sector (i.e. hotels and restaurants) are reviewed. The strategies of the hospitality sector are further underlined in terms of initiatives and practices, which have been implemented worldwide to facilitate sustainable waste management.

Keywords: waste management, food waste, prevention, hotels, hospitality sector.

1. Introduction

Food waste has a detrimental impact on the environment. If disposed to landfill, decomposing food gives off methane, a greenhouse gas twenty six times more potent than carbon dioxide. If unavoidable food waste is collected separately and sent for appropriate treatment it can be turned into valuable end products such as compost, fertiliser and renewable energy, but still the environmental and financial costs of food production are considerably higher than the value of the recovered products.

Food wastage is an issue that affects everyone. It is of particular concern for businesses in the hospitality and food service sector, which in Greece dispose of an estimated 300,000 tonnes of wasted food every year (Kaysenet al., 2012).

The United Nations Food and Agriculture Organization, has estimated that one third of food, i.e. around 1.3 billion tonnes per year, produced all over the world for human consumption is spoiled or wasted. Food loss and waste cost the world about \$1

In literature, reports on food waste generation and prevention practices in the hospitality sector are still very limited. Detailed recording of flows and waste production at the different critical points of the food preparation and service chain, has been proven to be an effective waste prevention process, as it has demonstrated a significant potential to reduce the food waste production in hotels. Additional studies, in various geographic regions and on different hospitality types, need to be conducted for the investigation of food waste production and good practices to move food waste management up in the waste management hierarchy.

trillion a year (FAO, 2014). In addition to food waste, water, soil, and energy resources are also wasted. Food loss and waste generates 8% of global GHGs emissions and consumes 30% of all water used by agriculture (FAO, 2014), which makes this issue a priority concern for all countries.

Although hotels do not create huge amount of wastes and consume huge amount of resources individually, collectively they cause substantial impacts on the environment (Kirk, 1995; Webster, 2000). It has been estimated 75% of hotels' environmental impacts are directly associated with excessive consumption (Bohdanowicz, 2006). This is wasteful in terms of resources and it increases operational costs unnecessarily. It is economically beneficial for hotels to pursue "green practices" in three areas, namely energy saving, water conservation, and recycling and waste management [Kirk, 1995; Stipanuk, 1996]. Public awareness of environmental issues is growing around the world, and the environmental profile of a hotel or a restaurant forms an increasingly important part of its overall reputation.

Environmental improvement is an increasingly important factor for businesses to stay competitive and manage their supply chain risks. Increasing resource scarcity; rising raw material, transport and utility costs; and pressure from legislation, customers and society to reduce environmental damage, are combining to drive businesses to improve their performance and become more sustainable. Business of the hospitality and food service sector, which incorporate environmental considerations into their operations will benefit from better corporate image which helps distinguish them in the marketplace as forward - Looking and responsible service providers who are sensitive to environmental issues.

1.1. The scope of the study

The main objectives of the study are the identification of the hotels' characteristics and the evaluation of the existing waste management systems in the hospitality and food service sector in a heavy tourist area of Crete, Greece.

2. Methodology

The characteristics of 24 hotels (28 hotels were approached) identified and the different waste management activities of the hotels were recorded, through detailed questionnaire-based study and interviews with hotel managers and/or food and beverages managers

3. Preliminary results

The analysis of the questionnaires showed that a general waste management procedure that has demonstrated a significant potential to reduce the food waste production of a hotel or a restaurant is the mere recording of flows and waste production. An important component of any waste management strategy is to identify quantities and sources of waste. Waste mapping (WRAP 2013a; WRAP 2013b) is a relatively new approach which is being used by organisations to facilitate more effective waste management and consequently food waste minimisation. It helps the establishments “understand where and how waste occurs, and how much it is really costing” them (WRAP 2013a; WRAP 2013b). With respect to the hospitality sector, waste mapping involves monitoring waste generation at a property in terms of which types of waste are generated, in what quantities, and in which locations of the property. A waste map is subsequently created to reflect this data. The establishment can subsequently plan its waste management operations in a more efficient manner.

The instruments for sustainable waste management exist and have implemented in various degrees in the hospitality sector worldwide. The challenge for the Greek hospitality and food service sector is to creatively adopt them and become increasingly effective, maximising the value of the resources used. This requires changing the way it thinks about products, the way it manages finite resources and the way it assesses and considers waste. This study, hopefully, makes a contribution towards a more sustainable approach to the food waste issue in the “heavy industry” of Greece, hospitality sector.

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