

Food Waste Management: Study of Indian Hotel Industry

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ABSTRACT: Hotel industry is witnessing the tremendous growth these days in India. According to a report of WTTC “Travel and Tourism Economic Impact 2017 India” India is contributing 6.9 % to the world GDP. As a result, a number of international players in hotel industry have started their venture in the country. Apart from having a number of opportunities hotel industry is facing a several problems, wastage of food on mass level is one of them. The levels of food waste from hotels and restaurants are enticing concern and is frequently handled not in a proper way which leads to additional environmental impacts. Present paper is an attempt to make the scholars and hoteliers aware about the food waste management practices in hotel industry in India by compiling the available resources and recording responses from the industry food handlers by field work questionnaire.

Keywords: Hotel Industry, Food, Waste Management, India

INTRODUCTION:

Hotel and restaurant industry is one of the major player in the growth of Tourism as a whole in India, since hotels use a very high number of natural resources from energy to food it is needed that sustainable practices must be adopted and managing the huge amounts of waste generated is one of the major concern. In a hotel major part of revenue is generated from the kitchens of different outlets which mean a large amount of food waste is also generated. The generation of this waste and managing it is not only a financial problem but environmental problem too. Since the waste produced here is bio degradable in nature and require large landfills to discard a lot of recourses are again used to to the same which basically increase the cost managing it and takes a toll on the environment by producing methane gas which is a contributor in greenhouse effect, not to mention the destruction to other flora and fauna in the nearby areas because of the toxins released by this waste.

In the process of delivering best services and achieving profits, the industry is forced to provide with high quality and quantity of food portions to survive the competition which is ultimately going to waste as producing high quality food for presentation and taste, large amount of food is wasted in the process and in the same way when the customer leaves the plate due to high portion or any other reason food is again put to waste. Since there are various steps where food waste is generated there is cost involved such as disposal and transport of waste and labor costs. The hotel industry needs to look into efficient ways which can bring savings to cost incurred and help in waste management.

HVS “Forecasting Hotel Room Requirement by 2021” highlights in their report that there is an estimated requirement of 343000 hotel rooms by the year 2021. It directly shows that the huge demand of hotels in the coming days. This kind of requirement also increases the volume of waste from the hotels. Hotels are the mass consumer of resources and produce the huge amount of waste out of these resources. The food related waste is one of the major challenges for hotel industry as well for the society also. Due to the lack of proper guidelines and training the food waste is becoming a burning issue for the stake holders.

The current paper is an attempt to make the people aware about the various waste management practices which can be adopted by the hotel industry. It will not only reduce their productivity cost but also work for the sustainable development.

LITERATURE REVIEW:

Hotels are the massive producer of waste. So it is very important to work on the food waste management plan. As a result, the problem of food waste is also becoming more complex. So it is the need of the hour to work in the concern area. Following are the discussions which have been made in this field-

Cornell (1975), states in their study that restaurants are one of the major waste producers in the field of commercial kitchen.

Barton (2000), Writes in his study that the cost of food waste is estimated to the 40 percent of a plated meal.

Ferris (1995), Found in their study that a number of variables influences the amount of wastage these are government regulation, storage capacity, beliefs of the organization, labor cost etc.

Shankling (1998), States in his paper that effective strategy and practices can reduce the amount of waste There should be an effective kind of disposal method for waste food.

National Restaurant Association (2010) The estimated food waste is approximately 53 percent by the year 2010 in take away services. This clearly shows that this kind of practices generates more wastage of food. So the suppliers should work on the effective portion control practices, so that the waste can be minimized

MSW Manual (2000) states that Composting of hotel food waste is one of the best way to manage it. Compost is a perfect soil conditioner.

Curry (2012) writes in his study that almost 50 percent of total waste of hotel industry comes from the food waste.

Kirk (1995) Suggests that we can reduce the food waste by focusing on the packaging techniques and by the method of disposal.

J.A. Rudmi Chehanika Sandaruwani* and W.K. Athula C. Gnanapala (2016) Finds that the majority of the hoteliers do not realize that one of the biggest resource efficiency opportunities lies in the kitchen.

Vikas Mohan (2017) stated that hotels do require commitment of the management and staff to manage their waste they need to spare time out to work and implement waste management strategies.

RESEARCH METHODOLOGY:

The study is exploratory in nature in total 225 employees from different hotels of India were selected. The research includes food production employees of the hotels. The objective of research is to understand an empirical approach of a single objective that is to investigate various practices to manage the food waste in hotel industry in India.

Table-1, various practices to manage the food waste in hotel industry

Portion Control	Proper Storage
FIFO Practice	Compost Services
Demand Forecasting	Training
Recycling	Separate Food Wastage Bin
Waste Reduction	Surplus Food for Staff Meals

There are 10 variable related to the practices to manage the food waste in hotel industry. All the variables were identified after the extensive review of existing literature.

Table-2, Demographic Profile of the Respondents

		Number(Valid Percentage)
Age	Below 20	50 (22.22)
	20-30	55 (24.44)
	30-40	75 (33.33)
	40-50	45 (20)
Education	10+2	180 (80)
	Graduation	45 (20)
Gender	Male	200 (88.88)
	Female	25 (11.12)

The table-2 shows the demographic profile of respondents (hotel employees). In all, two hundred twenty-five respondents were contacted, in 33.33 % of employee were between the age group of 30-40 years. As for as their qualification is concerned, majority of the employees (80%) were 10+2, 20 percent were Graduates (with hotel management degree). As per the gender 88.88% of employees were male and the 11.12% of employees were female.

RESEARCH FINDINGS:

Based on the secondary data 10 variables were identified to know the find the effective practices for waste management of food in hotel industry in India. Through structured questionnaire respondents were asked question on five point Likert scale. Factor analysis method is used to reduce these variables to limited number of factors. The analysis is done with the help of rotated component matrix. Thus reducing 10 variables to 2 factors, these are-

Table 3, Practices to manage food waste in hotel industry

Variables	Component		
	1	2	3
Waste Reduction	.851		
Recycling	.823		
Proper Storage	.801		
Demand Forecasting	.790		
Compost Services	.649		
Separate Food Waste Bin		.859	
Training		.800	
FIFO Practices			.726
Surplus Food for Staff Meal			.658
Portion Control			.605

Factor 1- Five Variables are loaded in this factor these are Waste Reduction (.851), Recycling (.823), Proper Storage (.801), Demand Forecasting (.790) and Compost Services (.649)

Factor 2- Two variables are loaded in this factor these are Separate food waste bin (.859) and Training (.800)

Factor 3- Three variables are loaded in this factor these are FIFO Practices (.726), Surplus food for staff meal (.658) and Portion Control (.605)

CONCLUSION:

Mass Production of food waste from hotel industry is such a big challenge, so there is a huge requirement to develop a holistic framework for waste management. In hotel industry most of the food wastes are compostable. The present study is an attempt to show that an effective waste management not only helps the organization to work for an eco-friendly environment but also helps them to earn profit out of it. Waste management is such a serious issue which needs the attention of public as well government authorities. The present study not only helps the hotels to adopt an effective waste management but also helps the researchers to work in the concern field.

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