

The Effect of Food Waste on the Profitability of Hotel Industry in Selected Hotels in Ogun State

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Abstract

A descriptive and cross-sectional study was conducted among sixty workers in selected hotels in Ogun State to determine the effect of food waste on the profitability of the hotel industry in Abeokuta Area of Ogun State. A semi-structured questionnaire was used to obtain information on the bio-data/socio-economic characteristic, causes of food wastage in the hotel and effects of food wastage in the hotel and the ways through which food waste can be prevented in the study area. Data obtained was analyzed using statistical package for social science (SPSS V.20). The results showed that more than half of the respondents (68.8%) attested that food wastage in the hotel industry in the study area were being caused by improper storage for raw materials, and almost an half of the respondents (42.5%) attested that food wastage can arise due to over production of food in the kitchen and also not paying attention to customer orders. The study reveals that effect of food waste if not properly managed may lead to loss of customer patronage, more expenses will be incurred by the hotel, the image of the hotel will be greatly affected/influence, and also reduction in cost of labor/manpower. The study recommended that there should be ala carte food service operation, daily food waste tracking, better ingredient purchase and storage. Also, there should be regular food plan reviews, efficient fore-casts of guest's demand and the most important there should be strong communication between the restaurant (the food service area) and the kitchen.

Keyword: Food, hotel, profitability, waste.

1.0 INTRODUCTION

Hospitality industry is a broad category of fields within the service industry that includes lodging, event planning, theme parks, transportation, cruise line, travelling and additional fields within the tourism industry. Hotel industry focused on satisfying customers need and it provides comfort, suitable accommodation, food and beverages, and also safe service in a friendly hospitable and pleasing manner.

According to United Nation, (2013), food waste (which is a component of food loss) is any removal of food from the food supply chain which is or was at some point unfit for human consumption or which has spoiled or expired, mainly caused by poor stock management or neglect. According to Wells, H.F & Hyman, J. (2014), Hospitality food waste has been defined as food that is unwanted and disposed of, such as leftovers from guest and peels from meal preparation that occurs during cooking. Pirani & Arafat, (2016) suggest that hospitality food waste should exclude non-edible items that occur during the cooking and consumption process, such as bones and seeds, residual oils, natural flavorings and colorants.

According to Zafar, (2013) Nigerian spends billion on food and beverage each year, 61% of which is spent in hotel, cafes and restaurants. The amount of waste coming from this sector is significant. Food waste has become a big issue in all types of businesses especially in the hospitality industry, because 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 when there is a low patronage of customer, a very common way of wasting food in the foodservice sector.

Most of the time food is always wasted because of purchases or prepare too much. If one purchases or prepares too much food than is needed, then it is obvious the excess food will go to waste. Another is excess purchases that end up passing their respiration dates and therefore loose taste and smell bad. At the end of it all, all the excess ends as waste food Raymond, (2012).

2.0 MATERIALS AND METHODS

Study Area

This study was carried out in selected hotels in Abeokuta area of Ogun State.

Study design

The study was cross sectional and descriptive in nature and involved hotel workers in selected hotels in Ogun state.

Sample size and techniques

Five (5) hotels were purposely selected for this research work in Ogun State. A total of 80 respondents were selected through a random sampling technique.

Data collection

A semi structured questionnaire was administered for data collection, questions were asked on areas peculiar to the study; Section A contains the socio-economic characteristics of the respondents. Section B contains the causes of food wastage in the study area; Section C contains the effects of food wastage on the hotel industry in the study area while Section D contains the ways through which food waste can be prevented in the study area.

3.0 DATA ANALYSIS

Data collected on this study was subjected to descriptive statistic using statistical packaged for social scientist (SPSS) version 20.

Results

Table 1 shows the socioeconomic characteristics of the respondents. It shows that 55% of the respondents were male and 45% of the respondents were female respectively. It also shows that 42.5% of the respondents were between the age limit of 26-30yrs, 35.0% were between 20-25yrs, 17.5% were between 31-35% while 5.0% of the respondents were above 35yrs respectively. The table also revealed that 56.3% of the respondents were single, 41.3% were married while 2.5% of the respondents were widow respectively .It shows that 43.8% of the respondents were hold OND/NCE holders, 40.0% of the respondents were HND/BSc holders, , 6.3% of the respondents were MSc / SSCE holders while 3.8% of the respondents were FSLC holders respectively. The table also shows that 47.5% of the respondents have been working for 3-7years and 5.0% of the respondents have been working for 8yrs and above respectively. The table further reveals that 26.3% of the respondents are waiters/waitress, 23.8% of the respondents are managers and cook, 7.5% of the respondents are chef and kitchen staff, and security, and 4.1% of the respondents as receptionist are at the front office.

SECTION A

Table 1: Socio-economic characteristics of respondents

Variable	Frequency	Percentage
Gender		
Male	44	55.0
Female	36	45.0
Total	80	100.0
Age		
20-25 years	28	35.0
26-30 years	34	42.5
31-35 years	14	17.5
Above 35 years	4	5.0
Total	80	100.0
Marital status		
Single	45	56.3
Married	33	41.3
Widowed	2	2.5
Total	80	100.0
Educational qualification		
First leaving certificate	3	3.8
S.S.C.E	5	6.3
O.N.D/N.C.E	35	43.8
HND/B.Sc	32	40.0
M.Sc	5	6.3
Total	80	100.0
Years of working experience		
3-5 years	38	47.5
6-7 years	38	47.5
Above 8 years	4	5.0
Total	80	100.0
Position held in the hotel		
Chef	6	7.5
Cook	19	23.8
Kitchen staff	6	7.5
Waiter/waitress	21	26.3
Receptionist	5	6.3
Manager	19	23.8
Receptionist	4	4.1
Total	80	100.0

Table 2 shows the causes of food wastage in the hotel industry in the study area. The results indicated that more than half of the respondents of about 68.8% strongly agreed that food wastage in the study area were caused by improper storage for raw materials and almost half of the respondents of about 42.5% strongly agreed that over production of food in the kitchen and also not paying attention to customer orders causes food wastage in the respective study area while about 36.3% and 22.5% of the respondents strongly attested that inadequate usage of portion control and over purchasing of food item needed causes food wastage in hotel industry. All these factors are responsible for food wastage in the hotel industry in the study area. From the results, it is clear that there are numerous reasons why food waste is created at hotels in the study area. The causes of food wastage in respective study area are similar to the food waste causes mentioned by (Baldwin C.J, 2015). This suggests that food waste is caused by many factors and in every stage of the food preparation; however, thorough planning and forecast can prevent further costs that food waste may create. It can be clearly deduced that food wastage has negative impact on the profitability of the hotel industry.

Table 2 Causes of food wastage in the study area

Variables	SA		A		U		D		SD	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Improper storage for raw materials	55	68.8	15	18.8	-	-	7	8.8	3	3.8
Over production of food in the kitchen	34	42.5	25	31.3	12	15.0	3	3.8	6	7.5
Over purchasing of food item needed	18	22.5	33	41.3	16	20.0	13	16.3	-	-
Inadequate usage of portion control	29	36.3	36	45.0	3	3.8	12	15.0	-	-
Not paying attention to customer orders	34	42.5	24	30.0	9	11.3	10	12.5	3	3.8

Table 3 shows the effect of food wastage in the hotel industry in the study area. The table reveals that 53.8% of the respondents strongly agreed that food waste will affect the hotel and can also lead to loss of profit/less profit it will also lead to loss of customer patronage and almost and half of the respondents of about 46.3% and 33.8% strongly agreed that if food waste is not managed properly more expenses will be incurred by the hotel in the course of production, the image of the hotel will be greatly affected/influence which can lead to reduction in cost of labor/manpower. This corroborates to the findings of (Baldwin & Shakman, 2012) that food waste builds up the financial burden on the business due to the waste of raw materials, labor costs during food storage and preparation. This financial burden eventually falls on the customers' shoulders when the hotel has to increase the overall price that they charge their

customers. Hence, it is obvious that food waste is not advantageous for both the business and the consumers.

Table 3: Show the effects of food wastage on the hotel industry in the study area.

Variables	SA		A		U		D		SD	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Loss of profit/less profit	43	53.8	31	38.8	6	7.5	-	-	-	-
Loss of customer patronage	27	33.8	36	45.0	13	16.3	4	5.0	-	-
More expenses are incurred	37	46.3	30	37.5	4	5.0	9	11.3	-	-
Image of hotel are greatly affected/influenced	18	22.5	34	42.5	20	25.0	1	1.3	7	8.8
Reduction in cost of labour/manpower	17	21.3	24	30.0	16	20.0	15	18.8	8	10.0

Table 4 shows the ways through which food wastage can be prevented in the study area. The table shows that majority of the respondents of about 67.5% and 63.8% strongly agreed that food wastage can be prevented by cooking to order (practicing ala carte food type of service operation) and introduction of portion size and it should be properly managed, also almost an half of the respondents of about (46.3%, 45.0%, 41.3% and 40.0%) strongly agreed as well that food wastage can be prevented by using First in first out(FIFO)/last in first out method(LIFO), keeping the stock organized i.e storing food items correctly (having WET STORE &DRY STORE), avoid wasting of ingredients before they are prepared (food items should be prepared on time) and lastly paying attention to food storage temperature (freezing points and cooling points). Furthermore the table also shows that 38.8% of the respondents strongly agreed that reduction in the amount of food to be produced is also a way of preventing food wastage in hotel industry.

This implies that in the respective study area, hotel's employees are aware of food waste and they have good intention to contribute to a better food waste management system at the respective study area.

Table 4 Show ways of preventing food wastage in the hotel industry in the study area.

	SA		A		U		D		SD	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Cooking to order	54	67.5	23	28.8	3	3.8	-	-	-	-
First in first out(FIFO)/last in first out	37	46.3	34	42.5	6	7.5	3	3.8	-	-
Reduce the amount of food produced	31	38.8	32	40.0	7	8.8	10	12.5	-	-
Avoid wasting of ingredients before they are prepared	33	41.3	20	25.0	13	16.3	11	13.8	3	3.8
Pay attention to food storage temperature	32	40.0	38	47.5	7	8.8	3	3.8	-	-
Manage portion size	51	63.8	14	17.5	15	18.8			-	-
Keep the stock organized	36	45.0	19	23.8	15	18.8	7	8.8	3	3.8

Table 5

Table 5 Chi-square test of relationship between profitability and food waste of the hotel industry in the study area.

Variables	Df	χ^2_{cal} (0.05)	Significance (P ≤ 0.05)	Decision
Profitabilty vs food waste		26.700 ^a	0.001	Significant

4.0 SUMMARY

The study focused on the effect of food waste on the profitability of hotel industry using five selected Hotels in Abeokuta area of Ogun state. It was found out from this research that food wastage in the hotel industry in the study area were being caused by improper storage for raw materials, over production of food in the kitchen, over purchasing of food item needed, inadequate usage of portion control, and also not paying attention to customer orders which is in conformity with (Baldwin C.J, 2015) findings. Also the respondents confirmed that food wastage has negative effects on the hotel business or industry at large. Its effects that are mentioned are as follow: loss of profit/less profit to the hotel industry thereby leading to loss of customer patronage i.e no funds to cater or to meet customer expectation and when customer is not getting enough they patronize elsewhere. These may results to the image of the hotel greatly affected/influence, and also reduction in cost of labor/manpower i.e when there is low patronage the source of income to the hotel industry will be reduced. This corroborates the finding of (Baldwin & Shakman, 2012) which says that food waste builds up the financial burden on the business due to the waste of raw materials.

It came to limelight that if practiced efficiently there are suggested ways through which food wastage can be prevented such as: cooking to order i.e practicing ala carte method of food service, using the First in first out(FIFO)/last in first out(LIFO) method, reducing the amount of food produced i.e cooking bit by bit except if need may arise for large preparation/cooking, avoiding wasting of ingredients before they are prepared, paying of attention to food storage temperature, management of portion sizes, keeping the stock organized and the utmost part of it is good storage i.e there must be adequate storage facilities for raw materials which is in line with Drewit T. (2013) findings.

5.0 CONCLUSION

The study on the effect of food waste on the profitability of hotel industry in the selected hotels tells that the hotel industry needs to work more on the causes of food wastage so that it can be rectified completely in order to increase the productivity of the industry. Content analysis was used to analyze data through tables and figures.

Study findings reveal that food waste remains one of the most complicated issues in the food service industry/ hotel industry and if not prevented it has adverse effects on the profitability of the hotel industry. It can be concluded from the findings of this research that food wastage affects the profitability of the hotel industry in the respective study area.

Recommendations

Based on the findings from this study, the following recommendations are proffered:

it is advised that a change in operation concept should be made, which is a switch from buffet to à la carte service and there should be daily food waste tracking, better ingredient purchase ,storage, smart food merchandising.

There should be employee training on how to use portion control, food recycling and there should be regular food plan reviews and the most important should be efficient fore-casts of guest's demand and a strong communication between the restaurant and the kitchen.

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