

## **Waste Management in Foodservice Industry in Sorsogon City Philippines**

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### **Abstract**

This aimed to determine the waste management of food service industry in Sorsogon City. The study utilized descriptive survey method of research to describe and interpret waste management in food service industry in Sorsogon City in the Province of Sorsogon along the identified variables. The instrument used in this study was survey questionnaire. The data gathered were subjected for analysis and interpretation using the appropriate statistical tools and measures. The respondents of the study were the food service establishment in Sorsogon City who are registered and were selected through random sampling. The instrument used by the researcher in data gathering is a teacher made survey questionnaire. The data gathered were subjected for analysis and interpretation using the appropriate statistical tools and measures.

**Keywords:** waste, management, food service, industry

## 1. Introduction

Waste mismanagement has serious environmental effects and policy of the state in adopting a systematic, comprehensive and ecological solid waste management program that ensures the protection of public health and the environment and the proper segregation, collection, transport, storage, treatment and disposal of solid waste through the formulation and adoption of best environmental practices. Moreover, it illustrates the potentials and benefits of recycling not only in addressing waste management problems but also in alleviating poverty.

Food waste is a problem with economic, environmental and social implications, making it both important and complex.

Reducing food waste is the key sustainability challenge for the food service industry. The food service industry employs more people than any other retail business therefore; the industry has a critical role in the global food waste challenge.

Food waste range from how the demand for food increases its price and reducing food waste is one of the key on sustainability challenge for food and service industry.

1. Most food service industry has practiced different ways and means on how to enhance the quality service their food establishment is offering.

2. As to the assessment of the food service providers majority of them follows the required waste management practices in terms of an average amount food waste in a of day, a reasonable amount of uneaten food that the establishment usually throws away, more than twice a week that they throw leftover foods that are consider to be good and leftover as the primary source of waste in food service industry in Sorsogon City.

3. As to problems encountered by food service industry were improper waste disposal of wasted food non-practice of FIFO and absence of sewage disposal needs to be addressed properly by the authority.

4. An Action Plan is hereby proposed to improve the waste management in food service industry in Sorsogon City

Some Recommendations are as follows:

1. The food service industry in Sorsogon City must work together to improve quality foodservice and come up with plan that will help organize a successful waste management for their establishment that will minimize it to a minimum waste.

2. Department of Trade and Industry must be able to conduct a year round trainings and seminars that will create up to date rules and regulations in terms of waste management.

3. Food service owners may collaborate with the Local Government Unit that can give them better insight into actual state of programs and all the information for the success of the company and its stakeholders.

4. Workshops and trainings related to marketing strategies in order to avoid large amount of food waste must be conducted regularly.

5. Both food service owner and providers must also be given training in terms of computer literacy to help promote awareness of the up to date technologies combine with strategies.

6. For the business to run smoothly, foodservice owners and providers must be knowledgeable about strategic waste management. They should strengthen not only the quality of product but also the quality service.

7. The proposed Plan of Action to improve the waste management of food service industry in Sorsogon City must be adapted and implemented.

8. Researchers may utilize the finding of this study as basis for conducting a study in line with the present research in a wider scope.

## **Objectives**

This study aims to determine the food waste management in food service industry in Sorsogon city. Specifically, these answers the following questions:

1. What are food waste management practices of the food service industry?
2. What factors motivates the service providers in the food service industry to engage more actively in food waste management in Sorsogon City?
3. What are the problems encountered by food service providers the food industry regarding the food waste management.
4. What can be propose to improve the food waste management of the food industry?

## 2. Research Methodology

This study determines the food waste management innovation of foodservice industry in Sorsogon City. The descriptive survey method of research was utilized in the study to determine the different waste management used in different foodservice industry in Sorsogon City and also identifies activities that helps improve food waste management.

This study made use of the descriptive-survey research design likewise, documentary and unstructured interview were used for the secondary data. The respondents were the foodservice establishment in Sorsogon City which were selected through random sampling. The results were analyzed and interpreted with the use of appropriate statistical tools.

The result of the data gathered from the questionnaire was tabulated, analyze and interpret. The researcher uses frequency counts, percentage, and rank and mean to determine the waste management in foodservice industry in Sorsogon City.

## 3. Result and Discussion

1. The total average mean of food waste management practices of the food industry is 3.79 interpreted as practice.

2. As to motivating factors of food service providers for indicator food waste in a day, it has an average amount of food in a day ranked as I with a frequency of 58 followed by a large amount of food waste in day ranked as 2 and lastly very little amount of food was ranked as 3.

As the most wasted in their establishment meat and fish products ranked as 1 with 58 frequencies, followed bread and grains as ranked 2 and fruits and vegetables as ranked 3, while dairy products and drinks, coffee grids and tea bags 4.5 and tissue paper ranked 6.

With regards the most uneaten food in the establishment that usually throws away a reasonable amount has a frequency of 63 and ranked as number 1., it was then followed by very little with a frequency of 29 and ranked 3 was more than it should be with a frequency of 23.

As to Throwing Leftover Food that is Considered as Good, The indicator “more than twice a week” ranked 1 with the frequency of 55, it was then followed by “twice a week” as ranked 2 and “less than 1 time a week” ranked 3 and the indicator “once a week” and “never” were ranked 4 and 5 respectively.

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For the Most Contributor of the Wasted Food in the Establishment indicator leftovers had a frequency of 48 and ranked as no. 1, while indicator food is expired and error in meal planning and purchasing ranked 2.5 with a frequency of 24 respectively.

3. There were problems encountered by the food industry regarding the food waste management and the first three common problems encountered were: improper disposal of food waste, non-practice of FIFO and absence of sewage disposal which ranked 1,2 and 3 respectively.

4. An Action Plan to improve the waste management in food service industry in Sorsogon City.

#### **4. Recommendations**

In the light of the preceding conclusions, the following recommendations were offered:

1. The foodservice industry in Sorsogon City must work together to improve quality foodservice and come up with plan that will help organize a successful waste management for their establishment that will minimize it to a minimum waste.

2. Department of Trade and Industry must be able to conduct a year round trainings and seminars that will create up to date rules and regulations in terms of waste management.

3. Foodservice owners may collaborate with the Local Government Unit that can give them better insight into actual state of programs and all the information for the success of the company and its stakeholders.

4. Workshops and trainings related to marketing strategies in order to avoid large amount of food waste must be conducted regularly.

5. Both foodservice owner and providers must also be given training in terms of computer literacy to help promote awareness of the up to date technologies combine with strategies.

6. For the business to run smoothly, foodservice owners and providers must be knowledgeable about strategic waste management. They should strengthen not only the quality of product but also the quality service.

7. The proposed Action Plan to improve the waste management of foodservice industry in Sorsogon City must be adapted and implemented.

8. Researchers may utilize the finding of this study as basis for conducting a study in line with the present research in a wider scope.

## References

### A. Books

Allen, Wills and Unwin. I., 2006. Economics and the Environment: A signaling and Incentives Approach

Bloom. J., 2010. American Wasteland: How America Throws Away Nearly Half of its Food (and What We can do About it). Da Capo Lifelong Books.

Vaughn J., 2008. Waste Management: A reference handbook  
Food and Agriculture Organization of the United Nation (FAO), International Fund for Agricultural Development (IFAD), United Nations World Food Programme (WTF). The State of Food Insecurity in the World 2013. The Multiple Dimensions of Food Security. FAO, Rome (Italy).

Zimring. C., 2005. Cash for Your Trash: Scrap Recycling in America

### B. Published Materials

Betz, A., Buchli, j., Gobel, C., Muller, c., 2015. Food waste in the Swiss Food service industry-magnitude and potential for reduction. Waste Management. 35.218-226.

Buzby, JC., Hayman.J., 2012. Total and per capita value of food loss in the United States. Food Policy 37 (5), 561-570.

Corbin, J., Strauss, A., 2008. Basics of Qualitative Research. Techniques and Procedure for Developing Grounded Theory. Sage Publications, Newbury Park, CA.

Curtiz, KR., Slocum, S.I., 2016. The role of sustainability certification programs in reducing food waste in tourism. J. Dev. Sustain. Agric.11 (1),1-7.

Dewar, R., Dutton, J.E., 1986. The adaptation of radical and incremental innovations: an empirical analysis. Manage. Sci. 32 (11), 1422-1433

Dewey, J., 1944. Democracy and Education. Free Press, New York.

Glaser, B., Strauss, A., 2009. The Discovery of Grounded Theory: Strategies for Qualitative Research. Transaction Publisher, NJ.

Papargyropoulou, E., Lozano, R., Steinberger., J., Wright, Ujang, N., & Bin, Z., 2014. The food waste hierarchy as a framework for the management of food surplus and food waste. J. CleanerProd. 651,106-115.

Sanitation Code of the Philippines (Presidential Decree No 856 Department of Health)  
Implementing Rules and Regulation of Chapter III Food Establishment

### **C. Unpublished Material**

Food Safety Magazine.2014. Electrolyzed Water: Instilling Confidence

Heikkila, L. Reinikainen, A., Katajajuuri, JM., Silvennoinen, K., Hartikainen, H., 2016. Elements affecting food waste in the food service sector. *Waste Manage.*56, 446-453.

Gossling, S., Garrod, B Aall. C., Hille, J., Peeters. P., 2011. Food Management in tourism: reducing tourism's carbon 'food print'. *Tourism Manage.* 32 (3), 534-543.

Parfitt. J., BArthel, M., McNaughton, S., 2010. Food waste within food supply chains: quantification and potential for change to 2050. *Philos. Trans. R. Soc.Lond. B: Biol, Sci*,365 (1554),3065-3081.

Pirani, S.I., Arafat, H.A., 2016. Reduction of food waste generation in the hospitality industry. *J. Cleaner Prod.* 132,127-145.