



Sustainable Food Waste Management: the Comparative Cases of Buffet Restaurants in Thailand

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Abstract

The purpose of this study is to investigate the potential strategies of sustainable management for food waste that are currently being applied in the buffet restaurants in Thailand. This study investigated practices of Suan Sampran and Krua Luang restaurants to answer the research objectives and questions. The primary data was collected by face-to-face interviews and site visits for personal observation as these methods enhance in-depth understanding. The richness of data is also supported by the secondary data from related industry articles and news. Research findings demonstrate that both buffet restaurant cases have taken comparable actions that align with their waste management experiences, the restaurant's strategies, policies and practices. Findings shed more lights on the two steps of food waste management and reveal that the business concept, business operations, Standard Operating Procedures (SOP), and management's views of sustainable practices, lead to different level of waste generated in the buffet restaurants and affect how waste has been handled in the restaurant operations.

Key words: Food Waste Management, Buffet Restaurant, Restaurant Process, Sustainable Development

Introduction

Food and beverage sector continues to grow impressively all over the world, so too in the Kingdom of Thailand. The food service business is continuously increasing due to the development of customer behavior and changes in population structure. According to statistics from Euromonitor, restaurant businesses in Thailand still continuously generate revenue growth by 4% a year from 2013 to 2018. The advancement from the same duration is 2.4% higher than the moderate private consumption, which directs the market share to grow in 2018 to around roughly 880 billion baht. Therefore, there is a prediction that the food service industry will continue to increase up to 4-5% in 2019 and 2020 (Pranida, 2019). Despite the growth, there is still existing demand that the industry cannot escape from its responsibility in contributing to protecting the environment from degradation and climate change (Chou, Chen, & Wang, 2012; Kasim, 2009). The sector is often subsumed into the tourism and hospitality industry as it is one of the core services that are in high demand by tourists and local consumers. Moreover, according to a wide-ranging search, there are countless of articles, blogs, and even the marketing fan pages writing about the best restaurants in terms of foods, quality, uniqueness, ambience, prices, service, and so on. Nevertheless, there is almost no article elaborating about the restaurant's strategies or management on how they keep their restaurant clean and sustainable to help the society, so the issue will open an opportunity for this research paper.

Method

This study applied qualitative methodology through self-observation and face-to-face interviews with the participants comprised of restaurant's owner/manager (to find out the operation process

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and information according to their experience, standard management, and understanding of the organization's overall standard operating procedure), main chef and servers (for practical details in their department which aligned with the restaurant's policies, standard, and operating procedure). The interview questions were divided into 3 sessions: personal information, interviewee's perspective, and their work ethic. Furthermore, the study also supported by secondary data: local newspapers, articles, and blogs that introduce/raise awareness about the issues related to food waste management in the industry. Thailand was the target area of this research with the case study of well-structured buffet restaurants (Krau Luang -KL and Suan Sampran - SS) in Bangkok. Content analysis was carried out in order to classify categorization and derive to meanings according the proposed Food Wasted Management Framework derived from the analysis of the literature, which is shown in Figure 1 hereunder.

Step 1	Process dimension Identify waste generated
	Pre-serve: Storage/Preparation/Serving Post-serve: Consumption
Step 2	Identify wastage hierarchy
	Reduce – Reuse – Recycle Landfill

Figure 1. Conceptual Framework: Food Waste Management of Buffet Restaurant

Results

According each step of food wasted management, for step 1, our findings support the possible causes of food waste which are the inefficient estimation of food production/purchasing, customer behavior, large portion size and menu design, unskilled cutting/cooking, improper staff communication, and food safety standard. Following Baldwin & Shakman (2012), there are two stages that cause food waste from the stakeholder: pre-consumption (kitchen) and post-consumption (customer). The findings support the literature in the sense that the two causes generate three types of waste: properly avoidable, avoidable, and unavoidable (Cuglin, Petljak, & Naletina, 2017). As food waste is harmful to the environment and the business revenue, it is important for the food service business to find out the root causes of the waste and learn about its categories before finding the approach to deal with the issue. The findings also indicate that the two restaurants have the same serving of buffet concept – 3 meals serving per day focusing on the 4 stars hotel standard; however, the menus and their style of operation are varied. For this reason, the two restaurants have tried different approaches to learn about their customer's preference and produce foods according to the nationality and preference of their customers. For step 2 on wastage hierarchy which is a tool for all business industries to study and classify their wastes, so that the effective solutions will be able to be figured out later after the discussion. The two restaurants sorted out their food wastes and were able to find out what type of wastes to be recycled which is beneficial to the restaurant financially. The two restaurants have some similarity and differences

in their technique of the 3 Rs (reduce, reuse, recycle), while both enterprises have a similar approach to wastes that are sent to landfill. The two restaurants have provided their answers and ways of dealing with waste similarly, as both have practiced the 3 Rs, however, the degree of implementation is different. KL buffet restaurants has been practicing 3 Rs following a brand standard and operating procedure from Seefah Lumpini Co., Ltd. Despite the current operational focus on food waste, the restaurant is still working on better processes of Reduce (to reduce too much food waste), and Recycle (to recycle waste as much as they can on their property). On the other hand, SS buffet restaurant appears to give more focused on the sustainable development, which has been practiced in their entire organization, as well as from all departments. Therefore, they are able to handle and put their full efforts in practicing 3 Rs from all aspects, as shown in the amount of food waste being reduced around 50 kgs per day). This gives SS the benefit to cut down costs, and the wastes that are left to the landfill are only toxic waste and some general waste.

Furthermore, the finding has shown a new strategy from the literature review of the previous study which include: improve cutting and cooking skill by following the standard of the cooking, choosing quality and organic products to ensure food safety; at the same time, branch chefs from both restaurants also mentioned about their knowledge in cooking and making use of the all products before disposing to the trash bin. One key difference between KL and SS is how managers/owners perceive the food waste issue: whether it is perceived in response to the fundamental values of the business, or it is seen as a good and desirable practice one should have. The core values that each enterprise uphold has reflected in the degree of practices, and waste reduction goals, along with the number of involved stakeholders in the food management process.

Besides, the nature and focus of the business has led the management level to conduct certain SOP to the business's operation. Also, the nature of KL restaurant is under a business management level that focus on standard and service quality, so sustainable development does not raise as an important topic for the associates to learn or trained for; therefore, their motivation to practice 3Rs serves by their interest and benefit. Likewise, SS has position themselves as an academy or learning center - not only have they practiced and received positive results, but also sharing their knowledge journey as a story and learning program; for this reason, practicing sustainable development has served their interest, as well as their business as brand awareness and marketing.

Conclusion and Implications

Food waste is one of the most challenging and complicated issue in the hospitality industry, restaurant business, and especially to buffet restaurant businesses. Even though Thailand is one of leading countries in Southeast Asia, the management and awareness of the issue is still not in a range of discussion in the industry. At the same time, food waste has giving many affects and bad impacts: such as the pollution to the environment, the threat to the natural resources and hunger in the society, as well as giving high cost to the business; however, the issues have left many obstacles for the business and service provider to manage, which might consider as additional work that cause them to neglect. The study benefits the restaurant industry and sheds light on how food waste take places within the buffet restaurant processes by providing the elaborations from the selected two buffet restaurant cases in Thailand. This study adds on the academic literature regarding to the

food waste management in the buffet restaurant context of Thailand which is still limited, and also benefit the buffet restaurant industry and particularly those restaurants that wish to undertake the process of food waste management within the business. In fact, food waste management should be applied in all kind of food service industries as it is not only a method to prevent foods from being wasted, but it also benefits other aspects in business. By looking into each step of process and taking note on the possibility to categorise waste from the food waste hierarchy, restaurants have a chance to increase efficient food production and to have better cost and expense management on food raw materials. Moreover, the restaurants also improve on the food waste management by increasing staff and supplier's communication, and promoting staff good practices. The practices could also be used as a positive message to attract more customers and increase positive brand image. As the study has shown that the factors that pushes the organization to take further actions toward the food waste issues are: the understanding of the matter, the benefit of the approach, nature and focus the business, Standard of Operating and Procedure (SOP), as well as the experience and perspective of the employees, it is not wrong to emphasise the important roles of management, who can strongly set vision and influence collective actions toward sustainable practices in the restaurants.

One major limitation was the limited number of selected cases studied due to time and resource limitation and the future research is recommended to further investigate other restaurant cases in different contexts. Future research to explore on the motivation factors on what make some restaurants switch from normal practices to conduct food waste management are recommended.

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