

OVERCOMING FOOD WASTE IN THE TOURISM INDUSTRY: A CASE STUDY OF SMALL AND MEDIUM SCALE RESTAURANTS IN BANDUNG

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Abstract

The tourism industry is expanding rapidly, but it also has significant negative impacts on the environment, particularly in relation to food waste. Food waste has become a pressing global issue, especially in the tourism sector. Each year, the amount of food wasted reaches alarming levels, resulting in economic, social, and environmental losses. Indonesia, as the second-largest contributor to food waste globally, generates an average of 300 kg of food waste per capita annually (Ministry of Agriculture of the Republic of Indonesia, 2019). This study focuses on understanding how small and medium-sized restaurants manage food and food waste, as well as examining the level of awareness among restaurant managers about the environmental impacts caused by food waste. Research shows that while consumers are often major contributors to food waste, restaurant managers also fail to fully implement effective waste management policies (Fajri & Shauki, 2023; Hermanu, 2022). One challenge restaurants face is balancing customer satisfaction with waste reduction. Overproduction, misjudged portion sizes, and improper food storage contribute to significant waste. Moreover, consumer behavior, especially in tourist areas, plays a major role, with visitors often ordering more food than they can consume. Several strategies can reduce food waste, such as offering smaller portions, encouraging takeaways, and using food waste tracking systems. However, these are not widely adopted. In Indonesia, some efforts to connect restaurants with food recovery programs have started, but their impact is still limited. The role of policymakers is crucial, with incentives and regulations needed to encourage sustainable practices. Addressing food waste in the tourism sector requires a multi-faceted approach involving better restaurant practices, consumer education, and stronger policy support.

Keywords: Food waste, Tourism industry, Food waste management, Small and medium-sized restaurants, Environmental sustainability.

A. INTRODUCTION

The booming tourism industry has brought many economic benefits, but it has also created serious negative impacts on the environment, one of which is the increase in food waste. Every year, tons of food are wasted around the world, including in Indonesia, which according to the EIU (Economist Intelligence Unit) is even the second largest contributor to food waste in the world. The impact of food waste not only affects the environment, but also creates significant economic and social problems. Food waste contributes to pollution that damages ecosystems and adds to the burden on the environment, while on the other

hand there are still many people who experience hunger and food shortages (Kementan RI, 2019; Hermanu, 2022).

Food waste does not only occur in large industrial distribution chains, but also at the household and restaurant level. Research shows that food waste behavior often arises from people's unwise consumption habits, both on a household and business scale (Fajri & Shauki, 2023). Many business owners in the food and beverage industry still focus on customer satisfaction, thus paying less attention to food waste management. On the other hand, existing regulations are still inadequate in regulating and instilling awareness of the importance of food waste reduction. Standard Operating Procedures (SOPs) adopted in some sectors also do not specifically regulate food waste management by considering long-term environmental impacts (Hermanu, 2022).

This study aims to explore how small and medium-sized restaurants manage their food waste, and examine the factors that influence the awareness and waste management practices of restaurant managers. Furthermore, this study aims to formulate the best scenario for food and waste management to mitigate negative impacts on the environment. This research is expected to contribute to efforts to create sustainable food waste management strategies in the tourism and food industry sectors.

B. RESEARCH METHOD

a. Research Methods

This research approach uses a descriptive qualitative method that aims to identify and understand food waste management in small and medium scale restaurants in Bandung. This study chose a qualitative approach because it is considered effective in exploring in-depth data on the behavior, awareness, and strategies of restaurant managers in managing food waste.

b. Research Subjects

The research subjects were managers of small and medium-scale restaurants in Bandung City, which is a frequent destination for culinary tourism. The selection of subjects was done by purposive sampling to ensure that the respondents involved have experience and understanding in food and food waste management in the culinary industry.

c. Research Procedure

The research procedure began with the identification of relevant locations and types of restaurants, followed by licensing to conduct interviews with restaurant managers. Researchers conducted direct interviews with managers to collect data on waste management policies, challenges faced, and awareness of the environmental impact of food waste generated.

d. Instruments and Data Collection

Data collection was conducted using a semi-structured interview method using an open-ended question guide to allow for flexibility. The interviews focused on the perceptions and actions taken by restaurant managers in handling food waste. In addition to interviews, field observations were also conducted to understand the operational conditions and potential waste generated.

e. Data Analysis

Data analysis was conducted through a coding process to identify key themes that emerged from the interview data. This process included three main

stages: (1) data sorting by organizing categories according to topics, (2) data coding based on key findings, such as “environmental awareness” and “implementation of waste SOPs”, and (3) development of themes that show trends and patterns in food waste management. The researcher also triangulated the data by comparing information from several restaurant managers to ensure consistency and validity of the findings.

C. FINDINGS AND DISCUSSION

a. Research Results

This research identified three main findings related to food waste management in small and medium-scale restaurants in Bandung City:

- 1) Food and waste management practices implemented by the manager,
- 2) Manager awareness of the impact of food waste on the environment, and
- 3) Potential for implementing sustainable strategies in food waste management to reduce negative impacts on the environment.

1. Food and waste management practices implemented by the manager

Most of the restaurants that were the subject of the study already have food and waste management efforts, but this practice is still limited to the separation of organic and inorganic waste. Although restaurants understand the importance of waste management, implementation is often sub-optimal due to limited facilities, such as limited waste management infrastructure. This finding suggests that despite initial awareness, small and medium-scale restaurants still face challenges in implementing a structured and sustainable waste management system. This finding supports Fajri & Shauki's research (2023) which states that many restaurant managers have not considered waste management as a priority because their main focus is customer satisfaction.

2. Restaurant Managers' Awareness of Environmental Impacts

Interview results show that most restaurant managers are aware of the negative environmental impact of food waste, but are often motivated by potential financial gain rather than environmental awareness. This can be seen in their minimal waste reduction practices, such as ordering food ingredients that sometimes exceed their needs or lack of uniformity in food storage standards. In addition, restaurant managers' sense of responsibility towards waste management tends to be limited, as they assume that the waste generated is mostly the result of customer consumption. This finding is in line with Schanes, Dobernig, & Gozet's (2018) research, which showed that financial concerns motivate waste reduction more than environmental awareness.

3. Potential Sustainable Strategies in Waste Management

In terms of potential sustainable strategies, the majority of restaurant managers showed interest in implementing a specialized Standard Operating Procedure (SOP) system for waste management, but require further support and training. The implementation of this SOP is seen as a positive step in improving the efficiency and effectiveness of food waste management in restaurants. In addition, some restaurant managers consider that if there is training or guidance from the government or related institutions, they can more easily implement this sustainable SOP. This is supported by

Hermanu's research (2022) which states that regulations and training related to food waste management can assist managers in increasing awareness and sustainable management practices.

b. Discussion

1. Relevance of Results to Research Objectives

The results of this study answer the initial question of how small and medium-sized restaurants manage their food and waste and their awareness of environmental impacts. The data collected showed that, despite initial efforts in waste management, managers' awareness of the importance of sustainable waste management is low. This indicates an urgent need for increased education and support, especially in implementing SOPs that can significantly reduce food waste.

2. Scientific Interpretation of the Research Results

The findings showing low environmental awareness among restaurant managers can be interpreted as a result of the top priority given to customer satisfaction rather than sustainable management practices. This confirms that more specific regulations and training are needed to drive significant change in the industry. In addition, these results show the importance of a sustainable and structured approach to food waste handling, which can be achieved through appropriate SOPs. Proper implementation of SOPs can change managers' habits in food management, which not only has an impact on operational efficiency, but also on environmental conservation efforts.

3. Consistency with Previous Research

The findings of this study are consistent with the research of Fajri & Shauki (2023) which states that food waste is mostly generated by consumers, but restaurant managers also have an important role in limiting waste. In addition, this study also supports the findings of Hermanu (2022) who mentioned the need for regulations and SOPs in food waste management. On the other hand, there are some differences with previous research in terms of the scale of the restaurant and the limited waste management facilities faced by small and medium-sized restaurants.

D. CONCLUSION

This study found that food waste management in small and medium-scale restaurants in Bandung City is still not optimal, although managers show an initial understanding of the importance of waste management. Restaurant managers' awareness of the environmental impact of food waste is often limited, focusing more on financial aspects than ecological responsibility. Most managers understand the importance of implementing more structured procedures, such as Standard Operating Procedures (SOPs), but limitations in facilities and training are the main obstacles to implementation. With the support of appropriate regulations and training, the implementation of SOPs can be an

effective solution in significantly reducing food waste, while increasing environmental awareness among restaurant managers.

This study proposes the need for government or related institutions' involvement in providing clearer regulations and training on sustainable waste management practices. For future research, it is recommended to focus on evaluating the economic and environmental impacts of implementing food waste management SOPs in small and medium-scale restaurants, as well as examining environmental education and campaign approaches that can increase sustainability awareness. This research also opens up room for more in-depth studies related to the role of consumers in reducing food waste, as consumption behavior in restaurants is one of the factors that contribute greatly to the volume of waste generated.

REFERENCES

- A, Q. (2021). Objek Penelitian: Pengertian, Macam, Prinsip, dan Cara Menentukannya. Retrieved from Gramedia Blog: <https://www.gramedia.com/literasi/studi-kasus/>
- Aprilia, P. D. (2022). Tinjauan terhadap Food Waste berdasarkan Teori Bioregionalisme Richard Evanoff dan Segitiga Steiner-Evanoff-UKDW. *Journal Teologi*, 147
- Azhari. (2023). PENGARUH STANDAR OPERASIONAL PROSEDUR (SOP), BUDAYA ORGANISASI DAN LINGKUNGAN KERJA TERHADAP KINERJA KARYAWAN. *jurnal JUBISMA*, 1.
- Fajri, T. N., & Shauki, E. R. (2023). POTENSI FOOD LOSS DAN FOOD WASTE PADA UMKM: MFCA, NUDGING DAN NEUTRALIZATION THEORY. <https://jaa.unram.ac.id/index.php/jaa/article/view/187/103>, 342.
- Hapsara, V., Jemy, P. S., & Gunawan, F. I. (2023). Penerapan Standar Operasional Prosedur Terhadap Penyimpanan Bahan-Bahan Kering Dalam Kegiatan Praktikum Pengolahan Makanan Universitas Pelita Harapan. *jurnal ilmiah pariwisata*, 76.
- Hermanu, B. (2022). Pengelolaan Limbah Makanan (Food Waste) Berwawasan Lingkungan. *Jurnal Agrifoodtech*, 9.
- Hermanu, B. (2022). Pengelolaan Limbah Makanan (Food Waste) Berwawasan Lingkungan Environmentally Friendly Food Waste Management. *Jurnal Agrifoodtech*, 7.
- Mutakin, A. (2018). Apa Lingkungan Itu?. *jurnal geoarba*, 65.
- Rachmawati, I. N. (2014). PENGUMPULAN DATA DALAM PENELITIAN KUALITATIF: WAWANCARA. *Lembar Metodologi*, 35.
- Rusandi, & Rusli, M. (2022). Merancang Penelitian Kualitatif Dasar/Deskriptif dan Studi Kasus. <http://jurnal.staiddimakassar.ac.id/index.php/aujpsi>, 2.
- Schanes, k., Dobernig, k., & Gozet, B. (2018). Food waste matters - A systematic review of household food waste practices and their policy implications. *Journal of Cleaner Wulandari, N., & Deniar, S. M. (2023). Upaya Negara Korea Selatan dalam Menangani Food Waste (Sampah Makanan). Jurnal Green Growth dan Manajemen Lingkungan*, 113 Production, 988.