African Journal of Hospitality, Tourism and Leisure **2025, Vol. 14 No. 3 pp. 537-543**
ISSN: 2223-814X

A Critical Review of Factors Contributing to Food Waste in the Food Service Industry

Ronelle CROCKER
Department of Hospitality and Tourism, Durban University of Technology, South Africa
Email, Ronellek@dut.ac.za

Reshma SUCHERAN
Department of Hospitality and Tourism, Durban University of Technology, South Africa
Email, reshma@dut.ac.za

Nirmala DORASAMY
Department of Public Management and Economics, Faculty of Management Sciences, Durban University of Technology, South Africa

Abstract

This review of existing scholarly sources highlights the factors contributing to food waste in the food service industry and proposes strategies for effective food waste management. Existing peer-reviewed journals indexed in the Scopus and Web of Science databases between 2000 and 2024 were critically analysed, and a comprehensive synthesis was conducted. An interpretive approach was employed as the theoretical foundation, allowing for synthesis of diverse conceptualisations across contexts. The analysis revealed that food waste in the food service industry is a complex issue attributed to interconnected factors, including inadequate purchase planning, improper storage, extensive menu choices, lack of awareness and training, and consumer behaviours. The interpretive approach acknowledges the context-specific nature of food waste generation in food service settings, distinguishing it from other environments. The study implies that a thorough understanding of food waste factors is required to effectively manage food waste. Ultimately, this review offers a broad understanding of food waste dynamics in the food service industry and provides a foundation for sustainable production and consumption within the sector.

Keywords: Food waste; sustainability; food service industry; hospitality; waste management

How to cite this article: Crocker, R. (2025). A Critical Review of Factors Contributing to Food Waste in the Food Service Industry. African Journal of Hospitality, Tourism and Leisure, 14(3):537-543. DOI: https://doi.org/10.46222/ajhtl.19770720.635

Introduction

The food service industry is gradually embracing the concern of food waste (Chen & Jai, 2018; Hennchen, 2019). This is noteworthy since the sector is growing substantially (Wang et al., 2017) and the food waste implications for sustainability are detrimental, but avoidable (Heikkilä et al., 2016; Papargyropoulou et al., 2019). Mattila et al. (2020) emphasise the seriousness of food waste across different economic settings. However, its impacts are more considerable in developed economies (Dagiliute & Musteikyte, 2019; Filimonau et al., 2023). Wasting food is unscrupulous and unsustainable (Diaz-Farina et al., 2023; Filho et al., 2023; Stirnimann & Laura, 2022). The main concerns include climate change, economic loss, and the assurance of food supply (Dhir et al., 2020; Kasavan et al., 2019). While food is lost along the entire food supply chain, the final stages present the most substantial implications (Kasavan et al., 2018; Lins et al., 2021). Food production requires several resources, and when food is wasted, all the resources utilised in its production are wasted (Bulhoes et al., 2022; Lins et al., 2021). Food waste is harmful to the environment (Bhajan et al., 2022). Roughly 3.3 billion tons of carbon dioxide are emitted due to food waste (Diwate & Aditeya, 2023). Moreover, globally, 2.6 trillion US dollars is lost annually to food waste, causing direct economic losses for the food service industry (Lins et al., 2021; Papargyropoulou et al., 2019). More than 850 million individuals globally are experiencing chronic hunger, yet more than enough food is produced to feed them (Wagay, 2023). This astounding statistic highlights a contradictory and unacceptable reality. Considering these implications, it is crucial to understand the factors that contribute to food waste in the food service industry. This critical review, therefore, aims to highlight and analyse the key factors contributing to food waste in the food service industry, examining kitchen food waste and plate waste from consumers. Through an analysis of existing literature, this paper explores various factors such as improper menu planning, purchasing and storage practices, preparation practices, overproduction of food, and inaccurate demand forecasting. Thereafter, an exploration of plate waste factors, including portion size preferences, behaviours regarding food service, and dining habits that influence waste levels, is presented.

Theoretical foundation and methodology

An interpretive framework was employed as a theoretical foundation for this review, allowing for a refined understanding of how literature conceptualises the factors that cause food waste in the food service industry. Food waste generation in the food service industry is a complex phenomenon influenced by factors that include kitchen operations, staff, and consumer behaviour. The interpretive approach acknowledges these diverse influences, allowing the researcher to capture and synthesise various factors contributing to food waste generation. Furthermore, this approach is useful in understanding the context-specific differences in food waste generated in food service settings, distinguishing it from other settings. The integration of various conceptualisations aims to develop a holistic understanding of the complex factors that contribute to food waste in the food service industry. The methodology of this literature review encompassed identifying, assessing, and synthesising relevant peer-reviewed journals. A widespread search and selection were conducted and entailed a grouping of relevant keywords and Boolean operators. The Web of Science and Scopus databases were utilised in the exploration of literature. The key search terms used included '*food waste*', '*food waste drivers', 'food waste causes',* and *'food service industry'*. The primary search

Open Rubric

terms were combined with additional keywords such as '*demand forecasting', 'large portion sizes', 'menu planning', 'food spoilage', 'overproduction', 'improper storage', 'buffet service',* and *'consumer food waste'* to refine the search. The databases collectively yielded 103 potentially relevant sources. Titles, abstracts, prefaces, and conclusion remarks were screened to identify relevance and applicability to the review. Inclusion criteria entailed English peer-reviewed journals focusing on food waste in the food service industry published between 2000 and 2024, narrowing the search to a final selection of 86 peer-reviewed journals for review. The results extracted were critically analysed and assessed to ensure the strength and consistency of findings across various sources. The extracted data was synthesised to identify any overarching patterns, trends, and gaps in understanding the factors that cause food waste in the service industry. This methodology ensured ample examination of the identified factors. This study's focus on the food service industry is directly applicable and relevant to policymakers, practitioners, and researchers.

Literature review

Understanding food waste in the food service industry

The food service industry is characterised by large quantities of food production around the globe (Martin Rois et al., 2018; Samsuddin et al., 2022), consequently generating an excessive amount of food waste (Lefadola et al., 2023). Research highlights the wastage of food in different food service establishments such as restaurants, hotels, canteens, cafes, and cafeterias (Betz et al., 2015; Boschini et al., 2018; Diekmann & Germelmann, 2021; Heikkilä et al., 2016; Lefadola et al., 2023; Papargyropoulou et al., 2016; Pirani & Arafat, 2016; Silvennoinen et al., 2015). This indicates an urgency for improved food waste management in the food service industry. In school and university canteens, types of service, lunch patterns, time constraints, portion control, and demand forecasting contribute to food waste (Derqui et al., 2018; Lefadola et al., 2023). In hospitals, portion sizes, food quality, hospital settings, mealtimes, and patient condition generate food waste (Parlina and Herat, 2024). Globally, hotels waste approximately 80,000 tons of food each year (Bhajan et al., 2022). This is attributed to inadequate purchasing procedures, improper storage, and inventory control (Goh & Jie, 2019; Kasavan et al., 2022; Okumus et al., 2020). Restaurants waste an astonishing amount of food (Kaman et al., 2024). Food waste in restaurants is generated from overproduction, food spoilage, plate waste training, inaccurate demand forecasting, and power outages (Aamir et al., 2018; Etuah et al., 2023). The various dynamics of the food waste phenomenon affect the extent of food waste as well as where it occurs in food production (Dhir et al., 2020; Lins et al., 2021). It must be noted that food waste undermines sustainability efforts regardless of where it occurs in the food supply chain. Several primary factors contribute to food waste in the food service industry, and they are complex (Bulhoes et al., 2022; Lins et al., 2021; Rohini et al., 2020). The nature and extent of food waste generation differ depending on dynamics such as the food service type, day of the week, the size of the food service establishment, consumer choices, and consumer behaviour (Beretta & Hellweg, 2019; Filimonau et al., 2023; Gonçalves et al., 2023; Jayasekara et al., 2024; Lefadola et al., 2023). In the food service industry, food waste is typically generated due to overstocking, poorly planned menus, poor communication, improper storage practices, overproduction, large portion sizes, poor food quality, and food service type (Bilska et al., 2020; Derqui & Fernandez, 2017; Steen et al., 2018; Tomaszewska et al., 2021). These factors are interrelated (Filimonau et al., 2023). To effectively manage food waste in the food service industry, the factors that contribute to this issue must be identified (Archip et al., 2023; Boschini et al., 2020; Wu et al., 2021). Within food service establishments, food waste can be classified into kitchen and plate waste (Jayasekara et al., 2024; Rady et al., 2021).

Kitchen food waste

Kitchen waste is created during the production of food, and plate waste is the food wasted by consumers (Jayasekara et al., 2024). Kitchen waste comes from over-ordering of food stock, improper menu planning, excessive food production, procurement issues, food preparation practices, staff behaviour, and a lack of awareness (Afzal et al., 2022; Bhajan et al., 2022; Bilska et al., 2020; Filimonau et al., 2021; Öztürk et al., 2023; Sucheran & Olanrewaju, 2021; Tomaszewska et al., 2021).

Improper menu planning

Inefficient menu planning and wide-ranging menu choices create food waste in the food service industry (Betz et al., 2015; Charlebois et al., 2015; Wu & Teng, 2023). Due to competitiveness, menus are often diversified, resulting in food waste (Huang et al., 2018). Extensive menu options present inventory control challenges and create food waste (Charlebois et al., 2015; Rady et al., 2021). Seasonal items have a lower demand, and establishments are still expected to stock the required ingredients, ultimately leading to the disposal of unpopular items (Matzembacher et al., 2020). Whilst it is common to provide various menu options to attract consumers (Filimonau et al., 2023), unpopular menu items must be removed from menus to reduce wastage (Rady et al., 2021). Extensive menu options mean more storage space, especially for perishable items (Bello et al., 2021). This leads to crowding in storage areas, impacting temperature, accelerating food spoilage, and ultimately creating food waste (Bello et al., 2021; Liu et al., 2022). If menus are adequately planned, establishments will require fewer ingredients on hand, less food will be spoiled, and less food waste will be generated (Hennchen, 2019). Furthermore, if the food service industry is inconsiderate of the needs and wants of consumers in the planning of menus, food waste will be generated (Rady et al., 2021). Clear, descriptive menus may reduce the likelihood of dishes being returned to the kitchen (Bharucha, 2018).

Procurement and storage practices

In the absence of inventory planning and suitable storage areas, food waste is generated in food service establishments (Sucheran & Olanrewaju, 2021; Tomaszewska et al., 2021). Up to 75% of food waste can be generated in the procurement

department of a food service establishment (Tomaszewska et al., 2021). When procurement is disorganised, it leads to excess inventory and generates food waste (Hennchen, 2019; Sucheran & Olanrewaju, 2021). Proper inventory planning must be in place as food service establishments are bound to order excessively and experience challenges in inventory management in the absence of purchasing planning (Bilska et al., 2020; Sucheran & Olanrewaju, 2021). The surplus ingredients lead to food waste because they become spoiled before they can be used (Bilska et al., 2020; Filimonau et al., 2023). Furthermore, food is disposed of if its quality has deteriorated or reached its use-by date (Kasavan et al., 2019). Food service establishments must keep a minimum amount of fresh ingredients on hand, allowing for easier inventory management, less food spoilage, and ultimately reduced food waste (Bilska et al., 2020; Hennchen, 2019). Stock cannot be used after expiry (Filimonau et al., 2023). Since food purchases account for almost 35% of the operating expenses of food service establishments, they should take more care in ensuring the procurement process is efficient and does not lead to wastage (Tomaszewska et al., 2021). Improper food storage and temperature abuse lead to the deterioration of food and, ultimately, food waste (Bhajan et al., 2022; Charlebois et al., 2015). If food is stored in the correct area, at the required temperatures, it will last longer and lead to less wastage (Charlebois et al., 2015; Sucheran & Olanrewaju, 2021). Food should be correctly labelled and dated before storage. In the absence of these adequate food storage practices, food waste is inevitable, and spoiled food cannot be repurposed in any way (Filimonau et al., 2023; Rady et al., 2021).

Preparation practices

Preparation waste accounts for up to 55% of kitchen waste in restaurants (Filimonau et al., 2021; Papargyropoulou et al., 2019), with almost 167 kilograms wasted daily (Omari et al., 2023). This indicates irregularities in preparation practices and skills (Sucheran & Olanrewaju, 2021). A study conducted on university campuses by Jayasekara et al. (2024) found that food preparation waste accounted for almost 89% of the waste generated. Incorrect food handling generates food waste (Bello et al., 2021). Additionally, strict quality control during the preparation of food consistently contributes to the problem (McAdams et al., 2019; Toma et al., 2020; Wu et al., 2021). Often, food service establishments do not use products like vegetables, bread, and dairy the next day, increasing the amount of food waste generated (Afzal et al., 2022). Food waste is also generated during the preparation stage when food is overproduced (Bilska et al., 2020). The overproduction is attributed to errors in demand forecasting and consumers' high expectations (Filimonau et al., 2020; Papargyropoulou et al., 2019). This exemplifies the interrelated nature of the factors that cause food waste. Food service establishments typically prioritise consumer satisfaction to ensure a competitive advantage (Charlebois et al., 2015; Filimonau et al., 2020). They often prepare meals using fresh ingredients and trim food excessively to ensure aesthetically pleasing meals, increasing food waste (Bello et al., 2021; Papargyropoulou et al., 2016). The use of convenience products or pre-prepared items could decrease the food waste generated (Beretta & Hellweg, 2019). However, Gao et al. (2021) argue that, as restaurants develop, they procure more pre-prepared foods, generating food waste within the supplier's operation. Ultimately, food waste is generated regardless of whether it occurs at the supplier level or within the food service establishment, impacting sustainability.

Overproduction of food and inaccurate demand forecasting

When establishments produce too much food, food waste is created (Aamir et al., 2018; Bulhoes et al., 2022; Heikkilä et al., 2016; Tomaszewska et al., 2021). This overproduction of food is usually driven by the desire to assume high profits and meet consumer demand (Aamir et al., 2018). However, consumer demand is highly unpredictable (Heikkila et al., 2016; Sakaguchi et al., 2018). Restaurants can yield almost three times what they spend on food production (Aamir et al., 2018), but this poses uncertainties regarding the actual economic impact when considering how much food is wasted. For example, the Ghanaian restaurant sector loses over USD 2,073,565 annually (Etuah et al., 2023). Is overproduction of food worth it? Research by Bharucha (2018) found that 75% of restaurants prepared up to 20% extra food to accommodate larger numbers of consumers. The typical overproduction of food is done as a precautionary measure (Kasavan et al., 2019; Rohini et al., 2020). This practice of holding 'safety stock' to avoid unhappy consumers generates food waste (Silvennoinen et al., 2015), particularly with unexpected variations in customer numbers. Studies consistently emphasise the challenge of demand forecasting accuracy (Heikkila et al., 2016; Hennchen, 2019). This challenge is particularly pronounced when food service establishments have no system in place to predict the expected number of consumers (Hennchen, 2019). Poor demand forecasting is an indication of the inefficiency of management and staff in the food service industry (Pirani & Arafat, 2016), especially in the absence of standard operating procedures (Aamir et al., 2018). This may be attributed to management's hesitancy to make the necessary investments in forecasting resources (Filimonau et al., 2019). Food service establishments must gain a thorough understanding of consumer demand and keep accurate records to effectively address and manage the challenge of consumer demand forecasting (Etuah et al., 2023).

Staff behaviour

Several studies emphasise the role of management and the substantial contribution of staff behaviour to the generation of food waste in food service establishments (Charlebois et al., 2015; Diaz-Farina et al., 2023; Goh & Jie, 2019). Managers set standards for food waste management, and are responsible for menu planning, recipe management, and inventory control (Charlebois et al., 2015; Heikkilä et al., 2016). These responsibilities thereby impact food waste generation. If they do not establish and implement standard operating procedures, food will be wasted (Aamir et al., 2018). Moreover, untrained, inexperienced staff carelessly prepare food, consequently leading to food waste (Bhajan et al., 2022; Silvennoinen et al., 2019). Poor or unclear communication also impacts food waste generation (Silvennoinen et al., 2019). Cooking errors attributed to the lack of skills

of cooking staff and the busy nature of food service establishments generate food waste (Kasavan et al., 2019; Filimonau et al., 2023). Kitchen staff should possess the skills necessary to prepare food, generate minimal waste, and innovatively plan dishes (Heikkilä et al., 2016). This is another clear indication of the interrelated nature of the factors contributing to food waste, additionally highlighting the importance of food waste awareness and training.

Lack of awareness and training

Both staff and consumers are wasteful when they are unaware of the serious implications of food waste (Gonçalves et al., 2023; Kasavan et al., 2021; Salehudin et al., 2020). Untrained staff are not competent enough to adequately prepare food, creating food waste (Kasavan et al., 2019; Papargyropoulou et al., 2019). Yet, if they are regularly trained on food waste, they could better manage the issue (Beretta & Hellweg, 2019). When staff are untrained, they create product failures that must be avoided (Charlebois et al., 2015; Okumus et al., 2020). Furthermore, inadequate recipe knowledge makes it difficult to correctly portion food and contributes to food waste generation in food service establishments (Silvennoinen et al., 2019). Food service establishments are typically busy, and due to time limitations, staff are untrained and, therefore, contribute to food waste (Okumus et al., 2020). Research indicates that when consumers are aware of the consequences of food waste, they feel morally responsible for preventing food waste (Zheng et al., 2023). Wu et al. (2019) highlight the importance of education in transforming the environmental awareness and behaviour of both food service staff and consumers. Reducing food waste will, therefore, require raising awareness and enhancing knowledge among all relevant stakeholders regarding the issue of food waste and its implications (Etuah et al., 2023; Marx-Pienaar et al., 2020).

Plate waste

Plate waste refers to the food that is still fit for consumption but is left on consumers' plates, often due to personal preferences, extensive menus, poor quality, and portion control issues (Afzal et al., 2022; Cerrah & Yigitoglu, 2022; Karakas, 2021). Consumers generate a considerable amount of food waste (Gonçalves et al., 2023). Some studies identify consumers as the primary contributors to food waste (Afzal et al., 2022; Okumus et al., 2020). Children are highlighted as extremely wasteful food consumers (Filimonau et al., 2023; Kasavan et al., 2019). Since older consumers have a greater appreciation for the value of food, they are mindful of its costs and waste less (Filimonau et al., 2023). Several factors influence consumer food waste behaviour, including culture, affluence, accessibility to convenient food, and low awareness of food waste impacts (Filimonau et al., 2020; Okumus et al., 2020; Papargyropoulou et al., 2019; Rady et al., 2021). However, a Tanzanian study by Maduhu (2019) interestingly highlighted that consumers have no reason to waste food and simply do it out of wasteful behaviour. According to Zeineddine et al. (2021), there is a notable correlation between the cuisine style, service type, menu design, and the generation of plate waste. Diekmann & Germelmann (2021) add that plate waste can result from situational factors like portion size, food quality, meal accompaniments, or personal factors like consumer attitude and customer intention. Furthermore, factors such as taste, hunger levels, emotions, eating speed, behaviour, and attitudes affect consumption (Filimonau et al., 2019; Ghandi et al., 2019). Consumers often order too much food or send food back to the kitchen when it does not meet their expectations (Tomaszewska et al., 2021). In some instances, they lack awareness regarding food waste and its associated concerns (Okumus et al., 2020; Strotmann et al., 2017). Consumers are typically attracted by large food portions yet blame establishments for food waste due to large portion sizes (Tomaszewska et al., 2021). This seriously impacts plate waste generation in the food service industry (Sucheran and Olanrewaju, 2021; Tomaszewska et al., 2021). While attractive to consumers, large portions can increase plate waste by 135% (Blum, 2020). In the United States (US), portion sizes are so excessive that they do not meet the recommendations set by the US Department of Agriculture (USDA) and Food and Drug Administration (FDA) (Hosni & Giannakas, 2022). According to Hennchen (2019), knowing how to portion food adequately requires a balance of professional ethics, customer satisfaction, and having sufficient financial resources to do so.

Serving styles distinctly influence the nature and extent of food waste generated (Chang, 2022; Sucheran & Olanrewaju, 2021; Tahir, 2023). Fine dining establishments produce more food waste than casual restaurants since they make use of higher-grade ingredients (Afzal et al., 2022; McAdams et al., 2019). Buffet restaurants generate up to 50% of food waste (Chang, 2022; Papargyropoulou et al., 2019), presenting serious sustainability challenges (Chang, 2022). Buffet service produces more food waste than a la carte restaurants (Kasavan et al., 2019; Papargyropoulou et al., 2019). The reason lies in the large provision of food, which encourages consumers to 'eat as much as they like' (Chen & Jai, 2018). In buffet restaurants, food waste is generated during preparation, from consumers, and at the buffet serving station (Omari et al., 2023; Wu & Teng, 2023). Consumers eat 92% of the food (Rady et al., 2021). This is largely because consumers tend to take more food than required, and kitchens over-prepare in anticipation of high demand (Okumus et al., 2020; Omari et al., 2023). This is evidenced by studies like Bhajan et al. (2022) noting more than 200kg of food wasted at buffets due to consumers dishing too much food from the buffet. Additionally, establishments must adhere to the maximum time that food is displayed on a buffet before it must be disposed of (Kasavan et al., 2019). The food service industry's strategy of producing large portions and offering varied food service styles to enhance consumer satisfaction has created a problematic, self-reinforcing pattern leading to increasingly unsustainable levels of food waste.

Conclusion and future perspectives

The findings of this review likely provide insight into the prevention of food waste in the food service industry by drawing attention to areas and factors that require urgent attention. The review revealed a scarcity of literature focused on food waste drivers; however, a wealth of published studies focuses on sustainable strategies for food waste prevention and reduction,

highlighting a significant gap, as it is crucial to ascertain the factors that cause food waste to successfully manage food waste. This presents an ineffective approach to the issue of food waste. Establishments can utilise this information to identify the root causes of food waste in their establishments to support them in establishing suitable, customised strategies to combat this issue. The literature review reveals that the food waste phenomenon is a complex issue, and all the factors that contribute to it are interrelated and take place at various stages of the food production process. Primary factors include operational inefficiencies such as improper inventory management and food preparation, extensive menu options and large portion sizes, regulatory and food safety constraints, lack of training and awareness of consumers and food service personnel, and consumers' behaviours and expectations. The obtained results may serve as a starting point for further studies to play a significant role in preventing food waste in the food service industry. Despite the valuable insights of current literature on the factors contributing to food waste in the food service industry, there is an overrepresentation of research in conventional and buffet restaurant settings, with limited research conducted in hospitals and fast-food chains. Most studies focus on specific, individual factors without exploring the interplay between the various factors contributing to food waste. Future research should focus on under-represented food service operators such as fast-food operations and hospitals. Information on food waste in the African food service industry is underexplored and warrants investigation. This paucity of information has presented constraints in contextualising this review and emphasises the urgent need for further research in African settings. Addressing the aforementioned gaps in research is critical in establishing suitable food waste management strategies in the food service industry.

References

Aamir, M., Ahmad, A., Javaid, Q. & Hasan, S. (2018). Waste Not, Want Not: A Case Study on Food Waste in Restaurants of Lahore, Pakistan. *Journal of Food Products Marketing*, 24 (5), 591-610 https://doi.org/10.1080/10454446.2018.1472695

Afzal, N., Basit, A., Daniel, A., Ilyas, N., Imran, A., Awan, Z.A. & Roy, N. (2022). Quantifying Food Waste in the Hospitality Sector and Exploring Its Underlying Reasons—A Case Study of Lahore, Pakistan. *Sustainability*, 14, (6914), 1-17. https://doi.org/10.3390/su14116914

Archip, B.C., Banatean-Dunea, I., Petrescu, D.C. & Petrescu-Mag, R.M. (2023). Determinants of Food Waste in Cluj-Napoca (Romania): A Community-Based System Dynamics Approach. *International Journal of Environmental Research and Public Health*, 20, 2140. https://doi.org/10.3390/ijerph20032140

Bello, A., Bello, N., Baba, K. & Abubakar, A. (2021). Challenges of Food Storage and Preservation in Restaurants in Katsina Metropolis, Katsina State, Nigeria. *Eurasian Journal of Food Science and Technology*, 5 (2), 136-146.

Beretta, C. & Hellweg, S. (2019). Potential Environmental Benefits from Food Waste Prevention in the Food Service Sector. *Resources, Conservation & Recycling*, 147, 169-178. https://doi.org/10.1016/j.resconrec.2019.03.023

Betz, A., Buchli, J.J., Göbel, C., Müller, C., Göbel, C. & Müller, C. (2015). Food Waste in the Swiss Food Service Industry-Magnitude and Potential For Reduction. *Waste Management*, 35, 218-226. https://doi.org/10.1016/j.wasman.2014.09.015

Bhajan, C., Neetoo, H., Hardowar, S., Boodia, N., Driver, M., Chooneea, M. & Ruggoo, A. (2022). Food Waste is Generated by the Mauritian Hotel Industry. *Tourism Critiques: Practice and Theory*, 3 (2), 120-137. https://doi10.1108/TRC-04-2022-0010

Bharucha, J. (2018). Tackling the Challenges of Reducing and Managing Food Waste in Mumbai Restaurants. *British Food Journal*, 120 (3), 639-649. http://dx.doi.org/10.1108/BFJ-06-2017-0324

Bilska, B., Tomaszewska, M. & Koło˙zyn-Krajew, D. (2020). Managing the Risk of Food Waste in Foodservice Establishments. *Sustainability*, 12, 1-18. https://doi.org/10.3390/su12052050

Blum, D. (2020). Ways to Reduce Restaurant Industry Food Waste Costs. *International Journal of Applied Management and Technology*, 19 (1), 1-12. https://orcid.org/0000-0002-1244-0914

Boschini, M., Falasconi, L., Giordano, C. & Alboni, F. (2018). Food Waste in School Canteens: A Reference Methodology for Large-Scale Studies. *Journal of Cleaner Production*, 182, 1024–1032. https://doi.org/10.1016/j.jclepro.2018.02.040.

Boschini, M., Falasconi, L., Cicatiello, C. & Franco, S. (2020). Why the Waste? A Large-Scale Study on the Causes of Food Waste at School Canteens. *Journal of Cleaner Production*, 246. 118994. https://doi.org/10.1016/j.jclepro.2019.118994

Bulhoes, M., Fonseca, M., Pereira, D. & Martins, M. (2022). Evaluation of Factors Responsible for Waste and Environmental Impacts Arising from the Production of Meals in Food Services. *Food Science Technology*, 1-13. https://doi.org/10.1590/fst.57920

Cerrah, S. & Yigitoglu, V. (2022). Determining the Effective Factors on Restaurant Customers' Plate Waste. *International Journal of Gastronomy and Food Science*, 27, 1-8. https://doi.org/10.1016/j.ijgfs.2022.100469

Chalak, A., Abou-Daher, C. & Abiad, M.G. (2018). Generation of Food Waste in the Hospitality and Food Retail, and Wholesale Sectors: Lessons from Developed Economies. *Food Security*, 10, 1279-1290. https://doi.org/10.1007/s12571-018-0841-0

Chang, Y.Y. (2022). All You Can Eat or All You Can Waste? Effects of Alternate Serving Styles and Inducements on Food Waste in Buffet Restaurants. *Current Issues in Tourism*, 25 (5), 727-744. https://doi.org/10.1080/13683500.2020.1870939

Charlebois, S., Creedy, A. & Von Massow, M. (2015). Back of House- Focused Study on Food Waste in Fine Dining: The Case of Delish restaurants. *International Journal of Culture, Tourism and Hospitality Research*, 9 (3), 278-291. http://dx.doi.org/10.1108/IJCTHR-12-2014-0100

Chen, H.S. & Jai, T. (2018). Waste Less, Enjoy More: Forming a Messaging Campaign and Reducing Food Waste in Restaurants. *Journal of Quality Assurance in Hospitality and Tourism*, 19 (4), 495-520. https://doi.org/10.1080/1528008X.2018.1483282

Dagiliute, R. & Musteikyte, A. (2019). Food Waste, Generation Restaurant Data and Consumer Attitudes. *Journal of Environmental Research, Engineering, and Management*, 7(2), 7-14.

Derqui, B. & Fernandez, V. (2017). The Opportunity of Tracking Food Waste in School Canteens: Guidelines for Self-Assessment. *Waste Management*, 69, 431e444. https://doi.org/10.1016/j.wasman.2017.07.030

Derqui, B., Fernandez, V. & Fayos, T. (2018). Towards More Sustainable Food Systems. Addressing Food Waste at School Canteens. *Appetite*, 129, 1-11. https://doi.org/10.1016/j.appet.2018.06.022

Dhir, A., Talwar, S., Kaur, P. & Malibari, A. (2020). Food Waste in Hospitality and Food Services: A Systematic Literature Review and Framework Development Approach. *Journal of Cleaner Production*, 270 (122861), 1-16. https://doi.org/10.1016/j.jclepro.2020.122861

Diaz-Farina, F., Díaz-Hern´andez, F. & Padr´on-Fumero, N. (2023). Analysis of hospitality waste generation: Impacts of services and mitigation strategies. *Annals of Tourism Research Empirical Insights*, 4, 100083. 1-12. https://doi.org/10.1016/j.annale.2022.100083

Diekmann, L. & Germelmann, C. (2021). Leftover Consumption as a Means of Food Waste Reduction in Public Space? Qualitative Insights from Online Discussions. *Sustainability*, 13 (13564), 1-30. https://doi.org/10.3390/su132413564

Diwate, A. & Aditeya, N. (2023). Food Waste Management in Restaurants. *IOSR Journal of Humanities and Social Sciences*, *28* (112), 19-23. http://doi:10.9790/0837-2812071923

Etuah, S., Adams, F., Mensah, J., Osei, A., Mensah, A., Liu, Z., Aidoo, R., Effah, P., Asamoah, K., Kwakye, EB. & Halid, N. (2023). Waste Generation and Management in the Food Service Sector: Evidence from Ghana. *Cleaner and Circular Economy*, 6 (100067), 1-10. https://doi.org/10.1016/j.clcb.2023.100067

Filimonau, V. & De Coteau, D.A. (2019). Food Waste Management in Hospitality Operations: A Critical Review. *Tourism Management*, 71, 234-245. https://doi.org/10.1016/j.tourman.2018.10.009

Filimonau, V., Krivcova, M. & Pettit, F. (2019). An Exploratory Study of Managerial Approaches to Food Waste Mitigation In Coffee Shops. *International Journal of Hospitality Management*, 76, 48-57. https://doi.org/10.1016/j.ijhm.2018.04.010

Filimonau, V., Fidan, H., Alexieva, L., Dragoev, S. & Marinova, D. (2019). Restaurant Food Waste and the Determinants of Its Effective Management in Bulgaria: An Exploratory Case Study of Restaurants in Plovdiv. *Tourism Management Perspectives*, 2211 (9736), 1-11. https://doi.org/10.1016/j.tmp.2019.100577

Filimonau, V., Todorova, E., Mzembe, A., Sauer, L. & Yankholmes, A. (2020). A Comparative Study of Food Waste Management in Full-Service Restaurants Of The United Kingdom And The Netherlands. *Journal of Cleaner Production*, 258 (120775), 1-12. https://doi.org/10.1016/j.jclepro.2020.120775

Filimonau, V., Zhang, H. & Wang, L.E. (2020). Food Waste Management in Shanghai Full-Service Restaurants: A Senior Managers' Perspective. *Journal of Cleaner Production*, 258 (120975). https://doi.org/10.1016/j.jclepro.2020.120975

Filimonau, V. & Sulyok, J. (2021). Bin It and Forget It! The Challenges Of Food Waste Management in Restaurants of a Mid-Sized Hungarian City. *Tourism Management Perspectives*, 37 (5), 100759. https://doi.org/10.1016/j.tmp.2020.100759

Filimonau, V., Chiang, C., Wang, L., Muhialdin, B. & Ermolaev, V. (2023). Resourcefulness of Chefs and Food Waste Prevention in Fine Dining Restaurants. *International Journal of Hospitality Management*, 108 (103368), 1-11. https://doi.org/10.1016/j.ijhm.2022.103368

Filho, W., Ribeiro, P., Setti, A., Azam, F., Abubakar, I., Castillo-Apraiz, J., Tamayo, U., Ozuyar, P.G.,Frizzo, K. & Borsari, B. (2023). Toward Food Waste Reduction at Universities. *Environment, Development and Sustainability*, 1-22. https://doi.org/10.1007/s10668-023-03300-2

Gandhi, P., Kumar, S., Paritosh, K., Pareek, N. & Vivekanand, V. (2019). Hotel Generated Food Waste and its Biogas Potential: A Case Study of Jaipur City, India. *Waste and Biomass Valorization*, 10, 1459-1468. https://doi.org/10.1007/s12649-017-0153-1

Gao, S., Bao, J., Li, R., Liu, X. & Wu, C. (2021). Drivers and Reduction Solutions of Food Waste in the Chinese Foodservice Business. *Sustainable Production and Consumption*, 26, 78-88.

Goh, E. & Jie, F. (2019). To Waste or Not to Waste: Exploring Motivational Factors of Generation Z Hospitality Employees Towards Food Wastage in the Hospitality Industry. *International Journal of Hospitality Management*, 80, 126-135. https://doi.org/10.1016/j.ijhm.2019.02.005

Gonçalves, C., Saraiva, S., Nunes, F. & Saraiva, C. (2023). Food Waste in Public Food Service Sector-Surplus and Leftovers. *Resources*, 12, 120. https://doi.org/10.3390/resources12100120

Heikkilä, L., Reinikainen, A., Katajajuuri, J.M., Silvennoinen, K. & Hartikainen, H. (2016). Elements Affecting Food Waste in the Food Service Sector. *Waste Management, 56*, 446-453. https://doi.org/10.1016/j.wasman.2016.06.019

Hennchen, B. (2019). Knowing the Kitchen: Applying Practice Theory to Issues of Food Waste in the Food Service Sector. *Journal of Cleaner Production, 225*, 675-683. https://doi.org/10.1016/j.jclepro.2019.03.293

Hosni, H. & Giannakas, J. (2022). An Economic Analysis of a 'Reduced Portion Size' Policy. *Agricultural Economics*, 17, 12. https://doi.org/10.1371/journal.pone.0279165

Huang, H., He, Y. & Li, D. (2018). Pricing and Inventory Decisions in the Food Supply Chain with Production Disruption and Controllable Deterioration. *Journal of Cleaner Production*, 180, 280-296.

Jayasekara, A., McGrath, D., Kravchuk, O., Zhou, S. & Morris, H. (2024). Mapping Pre-Consumer Food Waste in Quick Service Restaurants on a University Campus: Two Australian Case Studies. *Journal of Cleaner Production*, 434 (139978), 1-11. https://doi.org/10.1016/j.jclepro.2023.139978

Kaman, G., Bozkurt, I., Bolukbas, R., Ozhasar, Y., Dermirci, B. & Yazicioglu, I. (2024). The Strategy Food Waste in Restaurants: A Systematic Literature Review. *Trends in Food Science & Technology*, 151(104625),1-13. https://doi.org/10.1016/j.tifs.2024.104625

Karakas, K.M. (2021). Food Waste Management in Luxury Hotels: Best Practices and Limitations. *Journal of Environmental Science and Engineering*, 10, 103-111. http://dx.doi.org/10.17265/2162-5263/2021.03.003

Kasavan, S., Mohamed, A. F. & Halim, S. A. (2018). Knowledge and Attitudes of Hoteliers in Langkawi UNESCO Global Geopark Towards Sustainable Food Waste Management (SFWM). *Pertanika Journal of Social Sciences & Humanities, 26* (3), 1941-1955.

Kasavan, S., Mohamed, A. F. & Halim, S. A. (2019). Drivers of Food Waste Generation: Case Study of Island-Based Hotels in Langkawi, Malaysia. *Waste Management*, 91, 72–79. https://doi.org/10.1016/j.wasman.2019.04.055

Kasavan, S., Yusoff, S., Ali, N.I.B. & Masarudin, N.A. (2021). Reducing Food Waste at School Canteens: The Behaviour of School Communities. *Malaysian Journal of Society and Space*, 17 (2), 52-64. https://doi.org/10.17576/geo-2021-1702-05

Kasavan, S., Siron, R., Yusoff, S. & Fakri, M. F. R. (2022). Drivers of Food Waste Generation and Best Practice Towards Sustainable Food Waste Management in the Hotel Sector: A Systematic Review. *Environmental Science and Pollution Research*, 2, 48152-48167. https://doi.org/10.1007/s11356-022-19984-4

Lefadola, B.P., Viljoen, A. & Du Rand, G. (2023). Causes of Food Waste in a University Food Service Operation: An Investigation Based on the Systems Theory. African *Journal of Hospitality, Tourism and Leisure*, 12 (3), 1176-1191. https://doi.org/10.46222/ajhtl.19770720.424.

Lins, M., Zandonadi, R., Raposo, A. & Ginani, V. (2021). Food Waste on Foodservice: An Overview through the Perspective of Sustainable Dimensions. *Foods*, 10 (1175), 1-14. https://doi.org/10.3390/foods10061175

Liu, H., G´omez-Mi˜nambres, J. & Qi, D. (2022). Menu-dependent Food Choices and Food Waste. *Resources, Conservation & Recycling*, 176 (1051919), 1-9. https://doi.org/10.1016/j.resconrec.2021.105919

Maduhu, M. S. & Makori, F. (2019). Food Waste Management in Coastal Hotels in Tanzania. *International Journal of Academic Research in Business and Social Sciences*, 9(11), 185–204. http://dx.doi.org/10.6007/IJARBSS/v9-i11/6541

Marx-Pienaar, N., Du Rand, G., Fisher, H., & Viljoen, A. (2020). The South African Quick Service Restaurant Industry and the Wasteful Company it Keeps. *International Journal of Sustainable Development and Planning, 15* (1), 57-68.

McAdams, B., Von Massow, M., Gallant, M. & Hayhoe, M.A. (2019). A Cross-industry Evaluation of Food Waste in Restaurants. *Journal of Foodservice Business Research*, 22 (5), 449-466. https://doi.org/10.1080/15378020.2019.1637220

Matzembacher, D., Brancoli, P., Maia, L.M. & Eriksson, M. (2020). Consumer's Food Waste in Different Restaurants Configuration: A Comparison Between Different Levels of Incentive and Interaction. *Waste Management, 114*, 263-273. https://doi.org/10.1016/j.wasman.2020.07.014

Martin-Rios, C., Demen-Meier, C., Gossling, S. & Cornuz, C. (2018). Food Waste Management Innovations in the Foodservice Industry. *Waste Management, 79*, 196-206. https://doi.org/10.1080/10963758.2018.1413379

Mattila, M., Mesiranta, N. & Heikkinen, A. (2020). Platform-based Sustainable Business Models: Reducing Food Waste in Food Services. *International Journal of Entrepreneurship and Innovation Management*, 24 (5), 249- 265.

Okumus, B. (2020). How Do Hotels Manage Food Waste? Evidence From Hotels in Orlando, Florida. *Journal of Hospitality and Marketing Management*, 29, 291-309. http://dx.doi.org/10.1080/19368623.2019.1618775

Omari, A., Chafi, A., Mokhtari, O., Zraibi, L., Azzakhnin, I., Cheikh, B.B., Mchiouer, K. & Asri, O. (2023). Development of a Food Waste Prevention Strategy: A Case Study in a Hotel in Eastern Morocco. E3S Web of Conferences. 364, 1-5. https://doi.org/10.1051/e3sconf/202336402009

Ozturk, D., Secim, Y. & Secuk, B. (2023). Food Waste Management in Hospitality Operations: A Study of 4- and 5-Star Hotels in Konya Province. *Journal of Tourismology*, 9 (1), 30-40. https://doi.org/10.26650/jot.2023.9.1.1254147

Papargyropoulou, E., Wright, N., Lozano, R., Steinberger, J., Padfield, R. & Ujange, Z. (2016). Conceptual Framework for the Study of Food Waste Generation and Prevention in the Hospitality Sector. *Waste Management, 49*, 326-336.

Papargyropoulou, E., Wright, N., Lozano, R., Steinberger, J., Padfield, R. & Ujang, Z. (2019). Patterns and Causes of Food Waste in the Hospitality and Food Service Sector: Food Waste Prevention Insights from Malaysia. *Sustainability*, 11, 6016. https://doi.org/10.3390/su11216016

Pirani, S. I. & Arafat, H. A. (2016). Reduction of Food Waste Generation in the Hospitality Industry. *Journal of Cleaner Production*, 132, 129-145. https://doi.org/10.1016/j.jclepro.2015.07.146

Parlina, S.U. & Herat, S. (2024). Hospital Food Waste: Contributing Factors of Waste Generation and Strategy for Waste Minimization. *Environmental Science and Sustainable Development*,1-15. http://dx.doi.org/10.21625/essd.v9i1.1055

Rady, A., Dawood, A., Taleb, M. & Adel, M. (2021). Food Waste in Hotel Restaurants: Causes, Reducing Practices and Barriers. *Minia Journal of Tourism and Hospitality Research*, 12 (1), 135-155.

Rohini, C., Geetha, P.S., Vijayalakshmi, R., Mini, M.L. & Pasupathi, E. (2020). Global Effects of Food Waste. *Journal of Pharmacognosy and Phytochemistry*, *9* (2), 690-699.

Sakaguchi, L., Pak, N. & Potts, M. (2018). Tackling the Issue of Food Waste in Restaurants: Options for Measurement Method, Reduction and Behavioural Change. *Journal of Cleaner Production,* 180, 430-436. https://doi.org/10.1016/j.jclepro.2017.12.136

Salehudin, J., Ahmed, A., Jamaludin, A., Ridzduan, N., Norazam, S. & Kamal, S. (2020). Food Wastage Awareness Among Restaurant Consumers in Subang Jaya. *International Journal of Scientific and Technology Research, 9* (1), 1232-1236.

Samsuddin, Z., Zainal. N., Sulong, S. & Bakar, N. (2022). Handling Food Waste in the Hotel Industry. *Malaysian Journal of Social Sciences and Humanities*, *7* (11), 1-11. https://doi.org/10.47405/mjssh.v7i11.1926

Silvennoinen, K. Heikkila, L., Katajajuuri, J.M. & Reinikainen, A. (2015). Food Waste Volume and Origin: Case Studies in the Finnish Food Service Sector. *Waste Management*, 46, 140-145. https://doi.org/10.1016/j.wasman.2015.09.010

Silvennoinen, K., Nisonen, S. & Pietiläinen, O. (2019). Food Waste Case Study and Monitoring Developing in Finnish Food Services. *Waste Management, 97*, 97-104. https://doi.org/10.1016/j.wasman.2019.07.028

Sirieix, L., Lála, J. & Kocmanová, K. (2017). Understanding the Antecedents of Consumers' Attitudes Towards Doggy Bags in Restaurants: Concern About Food Waste, Culture, Norms, and Emotions. *Journal of Retailing and Consumer Services*, 34, 15-158. https://doi.org/10.1016/j.jretconser.2016.10.004

Steen, H., Malefors, C., Roos, E. & Eriksson, M. (2018). Identification and Modelling of Risk Factors for Food Waste Generation in School and Pre-School Catering Units. *Waste Management*, 77, 172e184. https://doi.org/10.1016/j.wasman.2018.05.024

Stirnimann, A. & Zizka, L. (2022). Waste Not, Want Not: Managerial Attitudes Towards Mitigating Food Waste in the Swiss-German Restaurant Industry, *Journal of Foodservice Business Research*, 25(3), 302-328. https://doi.org/10.1080/15378020.2021.1942749

Strotmann, C., Friedrich, S., Kreyenschmidt, J., Teitscheid, P. & Ritter, G. (2017). Comparing Food Provided and Wasted Before and After Implementing Measures Against Food Waste in Three Healthcare Food Service Facilities. *Sustainability Times*, 9. https://doi.org/10.3390/su9081409

Sucheran, S. & Olanrewaju, O. (2021, March 7-11). *Food Waste Management of Restaurants in KwaZulu-Natal South Africa. Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management*. Singapore.

Tahir, F., Ul Haq, J., Saleem, A., Akhtar, N. & Bonn, M. (2023). Diner's Sustainable Behavior: Differences between Sustainable Behaviors of Casual and Fine Dining Consumers, *Journal of Quality Assurance in Hospitality & Tourism,* 24 (5), 599-628. https://doi.org/10.1080/1528008X.2022.2070819

Tomaszewska, M., Bilska, B., Tul-Krzyszczuk, A. & Kołozyn-Krajewska, D. (2021). Estimation of the Scale of Food Waste in Hotel Food Services: A Case Study. *Sustainability*, 13 (1), 421. http://dx.doi.org/10.3390/su13010421

Wang, L., Liu, G., Liu, X., Liu, Y., Gao, J., Zhou, B., Gao, S. & Cheng, S. (2017). The Weight of Unfinished Plate: A Survey-Based Characterisation of Restaurant Food Waste in Chinese cities. *Waste Management*, 66, 3-12. http://dx.doi.org/10.1016/j.wasman.2017.04.007

Wagay, A. (2023). Food Waste: A Critical Element to End Global Hunger. *International Journal of Advanced Research in Biological Sciences. 10,* (3), 66-80. DOI: http://dx.doi.org/10.22192/ijarbs.2023.10.03.007

Wu, Y., Tian, X., Li, X., Yuan, H. & Liu, G. (2019). Characteristics, Influencing Factors, and Environmental Effects of Plate Waste at University Canteens in Beijing, China. *Resources, Conservation and Recycling,* 149, 151-159. https://doi.org/10.1016/j.resconrec.2019.05.022

Wu, A., Mohammed, A. & Harris, I. (2021). Food Waste Management in the Catering Industry: Enablers and Interrelationships, *Industrial Marketing Management*, 24, 1-18. https://doi.org/10.3390/foods12010162

Wu, C.E. & Teng, C. (2023). Reducing Food Waste in Buffet Restaurants: A Corporate Management Approach. *Multidisciplinary Digital Publishing Institute,* 12, 1-12. https://doi.org/10.1016/j.resconrec.2023.107059

Zeineddine, M., Kharroubi, S., Chalak, A., Hassan, H. & Abiad, H.G. (2021). Post-Consumer Food Waste Generation While Dining Out: A Close-Up View. *Plos One*, 16 (6), 1-13. https://doi.org/10.1371/journal.pone.0251947

Zheng, F., Zhao, C., Ajina, A.S. & Poulova, P. (2023). Decoding the Dilemma of Consumer Food Over-Ordering in Restaurants: An Augmented Theory of Planned Behavior Model Investigation. *Sustainability*,15, 8735. https://doi.org/10.3390/su15118735.