


# Chapter 1

## Do Restaurants Promote Their Sustainable Practices Online? Examining the Virtual Front of House

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### ABSTRACT

*The growth of the restaurant sector has meant problems of waste disposal, emissions, and business costs. However, in addition to traditional back-of-house (production, preparation, provision) and front-of-house (dining room, serving) categories, restaurants have a virtual front-of-house, given the extent that online presence is now a part of marketing and menu promotion, ordering, and feedback. Nevertheless, little is known of what sustainable restaurant practices, e.g. waste reduction, are promoted online. Following a discussion of restaurant sustainability practices and virtual front-of-house, this chapter presents the results of content analyses of the online presence of restaurants to identify which characteristics of restaurant sustainability, e.g., waste reduction practices, are promoted to customers. The results suggest that local food and seasonality are prominent, but other practices, such as waste management, receive limited attention even from restaurants that promote themselves as green. The implications for restaurant and food service sector sustainability are discussed.*

### 1. INTRODUCTION

The amount of food waste produced globally has increased exponentially (Zhang et al., 2020). According to the United Nations Environment Program, 17% of the food produced globally in 2019 was wasted

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(UNEP, 2021). The Food and Agriculture Organization (FAO, 2019) estimates that about one-third of the food produced is either wasted or lost, which amounts to 1.3 billion tons annually. The huge amount of food waste means that there is inefficient use of water and land, greenhouse gas emissions (GHG), and significant adverse impact on natural environment (HLPE, 2014). Given increasing population and associated demand for food, the amount of global food waste produced will continue to increase (FAO, 2019) unless there are major changes in food waste management.

Restaurants, and the wider food service sector, e.g., cafés, caterers, and hotels, have a huge impact on sustainability given the worldwide growth in out of home food consumption (FAO, 2019). Despite their economic significance and importance for employment (Dani et al., 2022), restaurants have long been recognised as being significant waste generators and exert a heavy toll on the environment due to their lack of environmental unsustainability (Kasim & Ismail, 2012; Maynard et al., 2020). The growth of the restaurant industry has therefore also meant increased problems of waste disposal, resulting in significant GHG emissions, resource waste, and business costs (Hall & Gossling, 2016; Martin-Rios et al., 2018; Obersteiner et al., 2021).

It is estimated that food consumption produces 34% of GHG emissions (Crippa et al., 2021). However, the impacts of food production and consumption can have negative environmental impacts over all stages of the supply and value chain from growing, harvest and production through to consumption and beyond (Scarborough et al., 2014; Crippa et al., 2021). Mitigation and increased environmentally friendly and green behaviour within the food system, and especially waste reduction, is considered essential for resource conservation, biodiversity maintenance, and ensuring long-term human and planetary wellbeing (Wee et al., 2021). Given that the restaurant and food services sector is continuing to expand as a result of increased eating out, more pick-up and takeaway because of digitalisation and contactless delivery and payment during and after COVID-19, and greater public concern over waste, many governments and consumers are seeking to encourage the sector to become more sustainable in order to meet their emissions and waste reduction targets (Elitzak & Okrent, 2018). For example, New Zealand has one of the highest rates of per capita waste generation in the OECD (New Zealand House of Representatives, 2020; Ministry for the Environment (MFE), 2023) and the New Zealand government has identified food related businesses as a major focus of its national waste reduction strategy which seeks that 'By 2050, Aotearoa New Zealand is a low-emissions, low-waste society built upon a circular economy' (MFE, 2023).

Waste creation contributes to poor use of natural resources, environmental degradation, limiting business economic success, and affecting food insecurity (Pirani & Arafat, 2016; Wang et al., 2017), and is increasingly portrayed in the media as a significant environmental and economic problem. Restaurants have numerous adverse environmental impacts including relatively high rates of resource use (e.g., electricity, gas, and water) which has been estimated to be 2.5 times greater than other business for the same amount of floor space (Han et al., 2011); extremely high use of plastic and non-recyclable packaging (Schubert et al., 2010), and food waste. To reduce these impacts, restaurants have been urged to make changes in all areas of the food value chain from procurement and storage through to preparation and plating (Filimonau et al., 2017; Principato et al., 2018).

Despite the need to improve the sustainability of restaurant and food services, its research scope remains limited (Filimonau & de Coteau, 2019; Filimonau et al., 2019a, 2019b; Gössling & Hall, 2022). This chapter therefore aims to expand research on restaurant sustainability, particularly in an online context, by expanding knowledge of the sustainable activities restaurants engage in and what is promoted to consumers online, what is also described here as the virtual front of house for restaurants. This introduction

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