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Journal article

Hospitality futures: Towards a sustainable, healthier and ethical way of catering

Guachalla, A.

This is the author's accepted manuscript of the article published as:

Hospitality futures: Towards a sustainable, healthier and ethical way of catering By Adrian Guachalla1 Source: Hospitality & Society, Volume 12, Issue 3, Sep 2022, p. 247 - 263 DOI: https://doi.org/10.1386/hosp_00054_7

Viewpoint

Hospitality futures: Towards a sustainable, healthier and ethical way of catering

Abstract

This viewpoint piece aims to draw attention to the opportunities that the development and active promotion of an attractive and nutritionally sound plant-based offer present to the hospitality industry on environmental, health and ethical bases that impact societal wellbeing. The case for advancing the promotion and normalisation of plant-based eating at catering facilities is argued using the threefold dimensions associated with food production. Firstly, the environmental impacts of different food types are discussed. This is followed by an evaluation of health-related debates linked to culinary consumption along with a selection of ethical issues involved in food production systems. This review highlights that the environmental sustainability challenges posed by the animal-agricultural sector call for innovative and effective mitigating measures that can be linked to the development and promotion of plant-based food consumption which the hospitality sector can actively promote. From the health perspective, plant-based diets can report health benefits in the prevention and treatment of health conditions, but this requires planning by catering providers for nutritionally adequate and wholesome eating. From the ethical dimension, removing animals from the food chain would not only achieve lesser environmental pressures and social issues associated with the consumption of animal-derived produce. This would also reduce the suffering that sentient beings endure across different stages in food production which in turn can improve the hospitality industry's corporate image and ethical stance whilst progressing positive social messages on sustainability, ethics and health.

Keywords: Sustainability, Health, Ethics, Plant-based, Catering, Hospitality Operations

Word count: 7448 words

Introduction

As each element of the tourism system globally adapts to post-COVID-19 era, discourse and debates around sustainability, health and ethical practices are likely to continue gaining momentum. Effective strategies to mitigate the environmental impacts of air travel will be increasingly sought as tourists seek to travel more responsibly (Chiambaretto *et al.*, 2021). At the same time, accommodation providers will continue seeking to harvest the benefits of improved corporate images stimulated by a stronger focus on sustainable hospitality operations (Khatter *et al.*, 2021). Such focus is encouraging as passenger transport carriers, hospitality outlets, visitor attractions and tour operators work in tandem towards a tourism industry that protects the principle of sustainable development. That is, to operate in the present day without compromising future generations' access to resources and abilities to meet their own needs (Nunkoo *et al.*, 2021). In the hospitality sector, issues relating to waste management and efficient use of energy and water have resulted in significant changes to operational guidelines, where often environmental practices are no longer regarded as exceptional or especially progressive (Wu *et al.*, 2021). Their implementation has evolved to now be seen as a norm as there is also wider discussion on ethical practices across all corners of the hospitality industry (Khatter *et al.*, 2021).

As an intricate element of hospitality provision, catering and the role of culinary resources in hospitality services specifically present abundant opportunities to promote responsible sourcing and consumption of food types that present lesser risks to human health (Guachalla, 2021). This is linked to the fact that the pandemic has inevitably resulted in a stronger focus and concern for health-related issues and the prevention of infectious diseases. To this end for example, the use of locally sourced produce and organic agricultural systems for sustainable, health and ethical purposes are also increasingly discussed within a hospitality context as caterers seek to engage with more sustainable sourcing of food products (Gössling and Hall, 2021; Legrand *et al.*, 2013; Lehtinen, 2012). This is equally encouraging as it derives in increased consumer confidence and in driving forward constructive discussion on progressive hospitality operations that incorporate environmental sustainability as a key priority that in turn may also report improved corporate images by catering providers. In addition to the implementation of these initiatives, I believe there is also ample scope for encouraging positive changes in consumer habits by actively promoting specific eating patterns. This can be achieved by developing an attractive and nutritious offer at catering outlets that take on board the environmental, health and ethical challenges that present and future hospitality operators will face (Perez-Cueto, 2020; Ye and Mattila, 2021). In this piece, I put forward the case for the promotion of plant-based eating and how the catering and hospitality industries can play a fundamental role in developing the plant-based market for environmental, health and ethical purposes.

As the global tourist market continues to become more diverse, hospitality operators face cumulative pressures to tend the needs of specific dietary choices rooted in religious beliefs and medical requirements among many others. This results in catering operations that seek to better understand the specific needs of a varied market base (McKercher *et al.*, 2022). In this sense, the plant-based market segment progressively gains significance as an important element within this expanding spectrum of dietary niche as the number of people that follow plant-based diets is verified to continue growing in significance (The Vegan Society and the Food Standards Agency, 2020). Therefore, the business benefits and the range of environmental, health and ethical issues associated with food production systems cement the need for catering providers to not only respond to increased demand for a varied, nutritious and enticing offer

towards the plant-based market. Effectively, the active encouragement of plant-based food consumption may structure powerful and positive messages of progressive and sustainable catering operations as noted by Guachalla (2021) in his assessment of the impact of plant-based provision and the tourist's destination image building. This is also in line with current trends and changes in consumer habits derived from health concerns regarding food provenance and risks associated with the consumption of specific food types as tourists engage in culinary activity at the destinations they visit (Hiamey *et al.*, 2021). From an ethical viewpoint, our relationship with animals, their role and treatment within the tourism system is also increasingly discussed including welfare issues in food supply chains (Fennell and Sheppard, 2021). Therefore, the catering industry can be instrumental in the task of encouraging healthier eating whilst mitigating some of the environmental and ethical pressures caused by food production systems. By developing and promoting innovative and attractive plant-based menus, the hospitality sector could exert a profound influence on society's perception of this type of food (Guachalla, 2021). Additionally, its normalised consumption could raise awareness of the threefold range of environmental, health-related and ethical issues in food production and consumption that ripple through society as reviewed below.

Sustainability

The catering sector's core business as a fundamental element of the hospitality industry is the provision of culinary products for human consumption, hence there is the need to evaluate the environmental impacts of specific food types to better understand how to progress sustainable catering operations (Gössling and Hall, 2021). In addition to this, the hospitality industry's response to environmental pressures results in a better understanding and analyses of demand levels for specific food types and trends in the consumers' eating patterns (Badu-Baiden *et al.*, 2022). To this end, the increased levels of meat consumption globally are specifically illustrated by De Boer and Aiking (2011:1260) who note that "the world population roughly doubled during the second half of the 20th century (from 2.7 billion to slightly over 6 billion) (and) its appetite for meat increased fivefold, from 45 to 229 billion kg" (see Steinfeld *et al.*, 2006; Sandford, 2017). The authors highlight findings from the United Nation's Food and Agriculture Organisation (FAO) who as early as 2006 identified that animal agriculture produced at the time more greenhouse gas emissions than all of the transport sectors combined, making it the single leading cause of environmental depletion. The FAO report (np) concluded that "the environmental costs per unit of livestock production must be cut by one half, just to avoid the level of damage worsening beyond its present level" and similar findings have been reported in more recent times (Ritchie and Roser, 2020). These costs are associated with numerous processes pre, during and post-farm which are also linked to extensive deforestation to rear and grow crops to feed animals for human consumption (Kröger, 2020). In addition, the use of water, energy and a host of different resources (Petrovic, 2015) also cuts across other sectors of animal agricultural systems beyond meat, such as eggs and dairy production (Chai *et al.*, 2019).

In a hospitality context, many caterers respond by seeking to engage with more sustainable food production systems and resources (Magrini *et al.*, 2021). However, as levels of animal-derived produce and consumption continue to grow in response to an expanding world population and as quality of life improves in developing countries (De Boer and Aiking, 2011), the environmental pressures that this increased demand produces call for the implementation of effective mitigating strategies by food providers. These have been invited more recently by both the Organisation of Economic Cooperation and Development (OECD) (2018) and again by the United Nation's FAO (2019). Given this evidence, the hospitality industry can respond

to these pressures by encouraging discussion on the environmental challenges emerging from food production systems. And by sourcing/implementing these effective mitigating measures which these studies appear to link with the normalisation and encouragement of plant-based eating at centres of culinary consumption that make the fabric of the catering and hospitality sectors. This response is approached by Perez-Cueto (2021) who identifies that many catering outlets, particularly in developed nations seek to encourage plant-based eating.

The frameworks above indicate that resources could be used more efficiently in food systems by removing animals from the food chain and promoting/encouraging/normalising plant-based diets and actively incorporating them into society's use of hospitality outlets and catering facilities (Perez-Cueto, 2021, 2020). However, it is also important to note that plant-based diets are not neutral to the environment as they also require the use of a variety of resources. Undoubtedly, different sets of plant-based food types report more environmental costs than others and also take from the planet to produce their yield. But there is a growing body of evidence highlighting that in general, plant-based diets are significantly less damaging from an environmental perspective (Henning, 2011; Rabès *et al.*, 2020). It appears appropriate for the hospitality industry to acknowledge and respond to this evidence with factual measures that can be reflected in the development of progressive and sustainable plant-based menus. For example, Jones (2022) discusses the shift towards the promotion of plant-based consumption at leading fast food outlets. This is in response to the fact that major global organisations such as the Intergovernmental Panel on Climate Change (2019) identify that plant-based diets present major opportunities to mitigate critical issues such as deforestation and climate change. This is indeed a salient factor to consider by catering providers given that the World Meteorological Organisation (2021), which is the United Nation's authoritative voice on weather, climate and weather, has flagged that climate change is an urgent issue and that irreversible damage on the planet may be impending within 5 years. Hence, drastic measures are called for to mitigate this damage, reflecting society's responsibility to work to this end. Therefore, the benefits of encouraging specific types of culinary consumption that contribute less to this depletion could not only improve the hospitality industry's environmental performance. But they could also lead to an improvement in the corporate image projected by catering providers along with culinary educational opportunities for end consumers, as the catering sector is a key stakeholder in mass-culinary consumption that may be of a more or less damaging nature from an environmental perspective (Jang and Zheng, 2020). Hence, the business benefits of an improved corporate image and a stronger focus on corporate social responsibility become evident in the context of plant-based eating at catering outlets (Khatter *et al.*, 2021).

As the tourism and hospitality sectors have a well-documented history of continued growth and expansion, it is critically important for the catering and hospitality industries to become an intricate part of the movement towards more sustainable practices and standards in this sense. It is encouraging to see this shift already being implemented in many contexts (Perez-Cueto, 2021). But there is also an exponential growth in the human population where the plant-based market remains a minority (Ritchie and Roser, 2020). Adding to the environmental challenges noted above and from a social sustainability perspective; land, water, energy and other resources are extensively used to grow crops to feed animals for meat and dairy in certain parts of the world. Meanwhile, extreme poverty and hunger remain critical world problems in other regions, raising questions regarding fairness in how global society caters to the dietary needs of current and future generations (Janssen *et al.*, 2016). Hence, there is scope for hospitality operators to rely on more socially and economically sustainable food systems that are less

environmentally damaging and rooted in a more balanced sense of social equity. All of this supports the development of plant-based culinary resources and the encouragement of plant-based diets; and hospitality outlets could progressively serve as instrumental springboards for their promotion. This highlights the ample opportunities for shifting towards more sustainable practices that could be driven forward by progressive changes implemented and normalised by the hospitality industry as a fundamental element of the tourism system globally (Martínez-Martínez, 2019). As noted by Hospitality and Catering News (2020:np) “In 2020 sustainability and veganism will become a moral responsibility for hospitality and catering”. Positive changes in this respect are underway in certain contexts, but I believe the hospitality industry needs to progress more discussion and initiatives to encourage more sustainable ways of eating.

Health

Animal-derived consumption can be approached from the cultural perspective cutting across most societal settings in the world as vegetarianism/veganism continue to be seen as a niche because they do not align to typical eating patterns. Initiatives such as Veganuary do result in expanded plant-based provision at eating outlets (Jones, 2022) but the plant-based market remains a minority globally. This is changing however as noted below, particularly among young hospitality users that present a stronger focus and concern for the health implications of the consumption of specific food types (Roeder, 2021; Faber *et al.*, 2020). In spite of views that animal-derived food is necessary to sustain a healthy lifestyle, the American Dietetic Association asserts that “appropriately planned vegetarian, including vegan, diets are healthful, nutritionally adequate, and may provide health benefits for the prevention and treatment of certain diseases. These diets are appropriate for all stages of the life cycle, including pregnancy, lactation, infancy, childhood, adolescence, older adulthood, and for athletes” (Melina, Craig and Levin, 2016:1970). The position is mirrored by the British Dietetic Association (2017). It should be noted that both entities include the element of planning in their statements.

This implies that planning for healthy eating may play a central and defining role in an individual’s plant-based food consumption and catering providers can put forward/promote culinary consumption alternatives to their users that may be healthy or damaging to their health. Therefore, hospitality operators could assist in this process by facilitating menus that normalise the consumption of nutritionally sound/appetising plant-based food whilst highlighting its benefits. Perez-Cueto (2020) identifies this focus positively within developed nations as noted above. In doing this, catering providers can drive forward positive changes in the consumer decision-making process applied to food consumption by encouraging consumption patterns that are better for human health as noted by global medical authorities. Hence, these providers would project concern for their users’ health whilst advancing constructive discussion on these issues. Chang *et al.*, (2021) assert that this health focus results in consumer satisfaction and destination loyalty (Guachalla, 2021). The ethical dimension of plant-based eating that catering outlets can take on board applies to its health advantages at an individual level but also for society as a whole given that processed meat consumption has been linked to cancer by the World Health Organisation (American Cancer Society, 2015). Conversely, Hemler and Hu (2019:275) highlight that plant-based diets “lower the risk of chronic diseases such as obesity, type 2 diabetes, cardiovascular disease, and some cancers”. Given that all of these conditions rank at the top of causes of death in the UK (ONS, 2020), the encouragement of plant-based eating can effectively contribute to individual and societal health and wellbeing provided that this is well-planned from the nutritional perspective. Catering outlets can take a leading role in this process (Gómez-Donoso *et al.*, 2019). Therefore, this also outlines promising avenues for the hospitality sector to promote healthier consumption by actively encouraging plant-based

eating and by providing detailed nutritional information to consumers on the positive value of such shift (Appleton *et al.*, 2019).

It is not only the consumers' health that is compromised when no alternatives to animal-derived produce are offered to them. But also, physical injury and exposure to serious psychological distress are widespread among slaughterhouse workers (Leibler, Janulewicz and Perry, 2017) which can result in mental health conditions that engender violence and cause harm. Hence, the hospitality industry can mitigate social/health issues derived from animal agriculture across different segments of its supply chain by shifting towards plant-based menus. **This indicates that** there are educational opportunities for users on the consumption of specific food types, which catering outlets can use to improve their corporate image provided that these are put forward positively and progressively to the end consumer. **The business benefits of this focus on corporate social responsibility also become evident in this respect** (Chang *et al.*, 2021). From a physical wellbeing perspective, cancer, heart disease and diabetes can be considered long-term health ailments. On the other hand, the risk of acquiring infectious diseases caused by campylobacter, salmonella and norovirus among others may be higher when eating animal-derived products (Food Standards Agency, 2016). Therefore, consumer confidence in the hospitality industry can be improved when hospitality providers protect the health of consumers by encouraging eating patterns that carry less health risks and hazards **as Appleton *et al.*, (2019) highlight the driving role that catering outlets may play in this process.** The treatment of the conditions noted above often requires up-to-date and new generations of antibiotics. Yet, the World Health Organisation (2017) identified that up to 80% of antibiotics worldwide are used on animals; and that their consumption in turn may hinder their effectiveness in treating current and future outbreaks (Martin, Thottathil and Newman, 2015).

This evidence highlights that progressive menu planning in the hospitality sector entails a shift towards the use of culinary resources that do not involve the use of antibiotics on livestock which may compromise the consumer's ability to effectively respond to treatments to virulent disease. **The hospitality industry can (and does in some contexts) respond to this by providing detailed nutritional information** (Gómez-Donoso *et al.*, 2019). **Yet my argument is that this focus should become more widespread and firmer.** Illustrating the health risks attached to animal-derived produce, scientific evidence links the COVID-19 pandemic with the animal meat trade (Wiebers and Faigin, 2020; Xie *et al.*, 2020; O'Callaghan and Antó, 2020). Firm agreement has not been reached on this yet. But a powerful lesson taught by this global crisis is that health risks and infectious diseases can dramatically transform the hospitality/tourism landscapes globally, as previous pandemics have in the past and similar future challenges undoubtedly lie ahead. **A resilient hospitality industry will be expected to be prepared for these challenges and play its role in protecting the consumer's health.** Adding to this, there is evidence that plant-based diets may help lessen the severity of COVID-19 infection among humans (Kim *et al.*, 2021). Therefore, the hospitality sector could actively respond in the aftermath of the pandemic by taking a positive and progressive stance, providing consumer assurance on their health by developing and promoting a wholesome and attractive plant-based offer in the menus found at catering outlets and centres of culinary consumption (Perez-Cueto, 2021, 2020). The evidence reviewed suggests that this shift would find its roots within the corporate social responsibility dimension as the hospitality industry can, and therefore should, drive forward and promote healthier/safer food consumption patterns for individual and societal wellbeing. **In return destination loyalty and consumer satisfaction may be positive results of this focus** (Chang *et al.*, 2021; Guachalla, 2021)

Ethical treatment of animals

The issue of animal welfare continues to gain momentum within a tourism context as the use of animals for a variety of purposes across different sectors of the tourism system generates discussion and debates (Fennell and Sheppard, 2021). In this sense, the hospitality industry's role in the treatment of animals within the food supply chain is also scrutinised given its implications on catering providers' corporate image (Jones and Comfort, 2021). Welfare legislation and directives for farm animals used for food vary greatly from one region to another as a global hospitality industry sources culinary resources derived from different contexts and regulatory frameworks. In the task of analysing these, World Animal Protection (2020) developed a comprehensive index of animal welfare provisions (including farm animals) which positions the UK and Europe as having the most stringent animal welfare legal frameworks. Hence, it could be argued that these set examples of good practice in the ethical treatment of animals raised for food **and the hospitality industry seeks to capitalise on firm commitments to farm animal welfare within the catering system (Motupalli, 2021)**. In spite of this, 72% of all European livestock products derive from Europe's largest and most environmentally destructive category of farms (Euractive, 2019). These factory farms are a response to the increased demand for animal-derived products (Kirby, 2010), where the quest for resource efficiency results in large amounts of animals crammed into confined spaces and deprived from displaying natural behaviours (Kumar *et al.*, 2019).

As noted, the catering sector is a global and intricate element of an ever-expanding hospitality industry and hence it is inevitable to link it with mass production and consumption of food. In view of this, a logical response to the ethical issues raised by mass food production would be to steer away from industrial food production systems and turn towards organic produce where the welfare of animals can be better cared for (Jones and Comfort, 2021; Akaichi, Glenk and Revoreda-Giha, 2019). However, if the hospitality sector altogether made such turn, intensive organic systems would again be required to meet such increased demand; and organically reared animals would also face the slaughterhouse, as factory-farmed animals do. **Therefore, my argument to this response is that animal sentience applies to all animals, whether intensively farmed or reared within organic systems.** This also highlights the links between shifting towards plant-based consumption and the hospitality sector's corporate social responsibility/ethical values that would ideally seek to distance themselves from causing suffering (Ye and Mattila, 2021; Lehtinen, 2012). It is also true that farm animal welfare is often central to misleading messages projected by food producers in an especially concerning type of greenwashing strategy (Christensen, Denver and Sandøe, 2019). **Hence, the plant-based case gains significance in contrast with commitments to farm animal welfare that inevitably require slaughterhouses. It is important to note that** tangible ethical issues arise as animals have the ability to experience feelings of suffering and pain (Bekoff, 2006), but lack the effective ability to articulate and communicate concerns about their welfare as reflected in marketing claims. **As a response to this,** animal advocacy groups that document such practices and expose them to the public are becoming more popular, particularly in the European/UK context (Morini, 2018) and social media is typically used to these ends (Loy, 2018). Hence, hospitality outlets that disassociate themselves from food production systems that involve animal cruelty would also safeguard their corporate image by shifting towards plant-based menus and hence promoting more ethical consumption patterns (Phua *et al.*, 2020).

In spite of this, the debate of whether to turn to better standards within the animal agriculture framework or reject animal-derived produce altogether and turn to plant-based menus continues. Further illustrating the ethical dimensions of 'high-welfare' food production

systems, in the EU and in the UK, piglet tail docking and teeth clipping without the benefit of anaesthetic relief are legal and common practices (D’earth *et al.*, 2016; Sinclair *et al.*, 2018). These regions, as discussed, report the most stringent legal frameworks and regulations on farm animal welfare. Mass tourism which inevitably involves mass culinary consumption at hospitality outlets are also a reality in these parts of the world. This opens avenues for catering providers to steer away from cruel practices and put forward alternatives to animal-derived produce which in turn would result in tangible evidence of their progressive corporate values and commitment to ethical practices. Chang *et al.*, (2021) note that the hospitality industry can benefit from destination loyalty and customer satisfaction given this shift as Guachalla (2021) also highlights the improvements to destination image that the catering sector can (and in many cases does) drive forward. An interesting assessment of these debates is that many in the West condemn the ethics of the dog meat trade in oriental foodscapes (Li and Yu, 2017). Yet the pigs that are widely consumed in Western societies report cognitive abilities that typically surpass those of dogs (Joy, 2020), which are conversations that are increasingly widespread, particularly among the youngest market segments (Roeder, 2021). This evidences market development opportunities for hospitality providers that, through rich and enticing plant-based menus, can attract and satisfy the needs and focus of this growing market with such ethical concerns. Jones (2022) addresses how the hospitality industry reaps benefits from this focus.

Further adding to the ethical issues that are increasingly discussed, in dairy production systems, cows are repeatedly inseminated artificially to produce milk and are separated from their calves routinely causing distress to both (Beaver *et al.*, 2019). This significantly reduces the dairy cows’ lifespan as male dairy calves are typically destroyed shortly after birth as by-products of the industry (Placzek, Christoph-Schulz and Barth, 2020). This, notwithstanding the fact that humans remain the only species that consumes milk from a different species, into adulthood; and that abundant alternatives to dairy drinks are (or can be) widely available if the catering industry commits to such alternatives. For example, in the UK, hospitality outlet Starbucks has removed the surcharge to its plant-based alternatives to milk (Dean, 2021). However, branches outside of the UK continue to make these alternatives more costly in spite of the lesser environmental and ethical impacts they produce (Kirby, 2010). Livestock transport also raises ethical questions as animals endure distressing journeys either locally on their way to slaughter or as they are exported live cross-nationally and even cross-continentially creating loopholes between country-to-country welfare legislation (Wicks, 2011). Hence, the availability and active promotion of plant-based alternatives to dairy at catering outlets along with the development of menus that do not rely on livestock transport altogether can effectively distance hospitality operators from practices that involve animal cruelty. Finally, slaughterhouses are also routinely documented as places of fear and suffering for sentient beings by animal advocacy organisations (Animal Aid, 2018; Viva, 2021). The industrial pace of operations at these facilities also reflects levels of demand as more than a billion farmed animals are slaughtered annually in the UK alone (Department for Environment, Food and Rural Affairs, 2019). Yet it was not until 2018 that CCTV surveillance at slaughterhouses was made mandatory in England. It is still not a legal requirement in the majority of Europe, the world’s leading region in animal welfare reform. This also highlights promising prospects for the hospitality industry to disassociate itself from ethical issues that continue generating discussion and debates, particularly among the youngest generations of tourists and catering users.

Conclusion

All of the issues reviewed above resonate with increasing numbers of individuals in contemporary society as a drive towards environmental sustainability, healthier eating and

more ethical treatment of animals has ignited a significant increase in the demand for plant-based products (Sanchez-Sabate, Badilla-Briones and Sabaté, 2019). Illustrating this, the number of individuals that identify themselves as vegan in the UK has quadrupled between 2014 and 2019 as noted by studies conducted by The Vegan Society and the Food Standards Agency (2020). Hence, the business opportunities for the hospitality industry that are created by the rapid growth of this sector in consumer demand are ripe (Aschemann-Witzel *et al.*, 2020). Specifically, among younger market segments that appear to have more exposure to and present more concern for issues relating to sustainability, ethics and health (Roeder, 2021). The hospitality industry's response to this increased demand is tangible in some contexts (Perez-Cueto, 2020) as more plant-based products and alternatives to animal-derived produce are extended to the market (Jones, 2022). However, I believe that this focus needs to be stronger and move at a faster pace given the environmental, ethical and health-related pressures associated with animal agriculture. Adding to the business benefits that this shift report, I argue that this provision should not be handled only as a niche by the hospitality and catering sectors. It should be legitimised as a powerful tool to encourage healthier, more ethical and environmentally sustainable consumption patterns. These can be used as a flagship policy which, given the evidence, can result in improved corporate images for catering providers and in the mitigation of environmental, health and ethical challenges. However, this task is very complex without a doubt given the cultural associations and historical normalisation of the consumption of animals in modern society.

The hospitality sector is responding to these challenges, in selected contexts as noted above, but the wider societal benefits of shifting toward plant-based eating should be given more importance. The benefits would be for the sector as a whole, for individual caterers and at an individual level for consumers themselves. da Costa *et al.* (2018) found that both physical and mental well-being gains and sacrifices are reported to consumers as a result of following a plant-based diet. It is therefore clear that a re-thinking by catering outlets of how maximising these benefits and minimising such sacrifices would pave the way for a smoother transition towards the normalised consumption of plant-based food. From a wider perspective and within a tourism context, Guachalla (2021) found that destinations can project positive and welcoming messages of progressiveness and cosmopolitanism through a rich offer for the plant-based market as these can also provide business opportunities for smaller catering and hospitality operators that serve the needs of this specific market segment. These catering practices in turn have the ability to strengthen community bonds and develop social capital among guests and resident communities. But inevitably, it is also clear that attitudes towards plant-based eating need to be understood and improved through continuous research, innovation and by widely progressing discussion on this topic across different levels in society and the different elements of the hospitality and catering systems (Faber *et al.*, 2020; Appleton *et al.*, 2019; Zhou *et al.*, 2019). The hospitality sector can take a leading role in better understanding these attitudes and take the initiative to normalise debates and discussion on sustainable, ethical and healthy hospitality operations; which would inevitably derive in the topic of plant-based eating.

It is also important to note that in no way would the movement towards a plant-based agricultural economy make the farmers' role redundant. The exact opposite would happen. Developing attractive plant-based products and gastronomic resources would require culinary innovation and entrepreneurship by the catering and hospitality sectors (Perez-Cueto, 2020). But just as importantly, it would necessitate the expert farmers' hands to generate the input necessary to develop such products and effectively encourage their consumption at catering facilities and hospitality outlets. Hence, the hospitality sector would not cut ties with elements

of its supply chain but encourage them to transform their operations and nature of business for environmental sustainability, health and ethical purposes. I do not believe the vegan community can achieve this on its own as corporate support and unity are needed for agricultural systems to evolve and change, as it happened with the tobacco industry decades ago (Ioanidis *et al.*, 2013). It should stop being handled as a divisive issue between vegans and non-vegans; as we have all endured the consequences of a devastating pandemic which progressed extensive debates and discussions on how to work towards a fairer, healthier, more sustainable, safer and ethical planet. The advancement of legal equality towards women, LGBT+, ethnic and further social groups within society requires the support of organisations and individuals across all corners of political and social spectrums. Similarly, the development and normalisation of plant-based culinary consumption at catering outlets call for the support of a broad range of stakeholders within the food production system, which obviously includes the hospitality industry given its central role in culinary consumption in society. I believe positive signs of change are tangible and evident as seen by the rise of the plant-based market in some societal contexts. But the catering and hospitality sectors – at a global level – need to embrace the fact that humanity needs to drastically reduce its consumption of animals and implement extensive initiatives to this end. This is highly unlikely to be achieved by judging or shaming. Instead, these sectors, as valuable and meaningful as they are for contemporary society, can unify and discuss the issues and their evidence openly, and source sustainable solutions to tangible challenges. This is possible, it is a realistic and effective way forward. These challenges can be approached positively as the hospitality industry in places big and small can discuss views and play an instrumental role in the promotion of plant-based food consumption rooted in deeply significant environmental, health and ethical grounds.

REFERENCE LIST

Akaichi, F., Glenk, K. and Revoredo-Giha, C. (2019) Could animal welfare claims and nutritional information boost the demand for organic meat? Evidence from non-hypothetical experimental auctions. *Journal of Cleaner Production*, 207, pp.961-970.

American Cancer Society (2015) World Health Organization Says Processed Meat Causes Cancer [Online] Available at: <https://www.cancer.org/latest-news/world-healthorganization-says-processed-meat-causes-cancer.html> (Accessed: March 2021)

Animal Aid (2018) Slaughter [Online] Available at: <https://www.animalaid.org.uk/the-issues/our-campaigns/slaughter/> (Accessed: March 2021)

Appleton, K.M., Dinnella, C., Spinelli, S., Morizet, D., Saulais, L., Hemingway, A., Monteleone, E., Depezay, L., Perez-Cueto, F.J.A. and Hartwell, H. (2019) Liking and consumption of vegetables with more appealing and less appealing sensory properties: Associations with attitudes, food neophobia and food choice motivations in European adolescents. *Food Quality and Preference*, 75, pp.179-186.

Aschemann-Witzel, J., Gantriis, R.F., Fraga, P. and Perez-Cueto, F.J. (2020) Plant-based food and protein trend from a business perspective: markets, consumers, and the challenges and opportunities in the future. *Critical Reviews in Food Science and Nutrition*, pp.1-10.

Badu-Baiden, F., Kim, S.S., Xiao, H. and Kim, J. (2022) Understanding tourists' memorable local food experiences and their consequences: the moderating role of food

destination, neophobia and previous tasting experience. *International Journal of Contemporary Hospitality Management*, 34(4), pp.1515-1542.

Beaver, A., Meagher, R.K., von Keyserlingk, M.A. and Weary, D.M. (2019) Invited review: A systematic review of the effects of early separation on dairy cow and calf health. *Journal of dairy science*, 102(7), pp.5784-5810.

Bekoff, M. (2006). Animal emotions and animal sentience and why they matter: Blending “science sense” with common sense, compassion and heart (pp. 27–40). London, UK: Earthscan Publishing.

British Dietetic Association (2017) British Dietetic Association confirms well-planned vegan diets can support healthy living in people of all ages. [Online] Available at: <https://www.bda.uk.com/resource/british-dietetic-association-confirms-well-planned-vegan-diets-can-support-healthy-living-in-people-of-all-ages.html> (Accessed: March 2021)

Chai, B.C., van der Voort, J.R., Grofelnik, K., Eliasdottir, H.G., Klöss, I. and Perez-Cueto, F.J. (2019) Which diet has the least environmental impact on our planet? A systematic review of vegan, vegetarian and omnivorous diets. *Sustainability*, 11(15), p.4110.

Chang, J., Morrison, A.M., Chen, Y.L., Chang, T.Y. and Chen, D.Z.Y. (2021) Does a healthy diet travel? Motivations, satisfaction and loyalty with plant-based food dining at destinations. *British Food Journal*.

Chiambaretto, P., Mayenc, E., Chappert, H., Engsig, J., Fernandez, A.S. and Le Roy, F. (2021) Where does flygskam come from? The role of citizens’ lack of knowledge of the environmental impact of air transport in explaining the development of flight shame. *Journal of Air Transport Management*, 93, p.102049.

Christensen, T., Denver, S. and Sandøe, P. (2019) How best to improve farm animal welfare? Four main approaches viewed from an economic perspective. *Anim. Welf*, 28, pp.95-106.

D’earth, R.B., Niemi, J.K., Ahmadi, B.V., Rutherford, K.M.D., Ison, S.H., Turner, S.P., Anker, H.T., Jensen, T., Busch, M.E., Jensen, K.K. and Lawrence, A.B. (2016) Why are most EU pigs tail docked? Economic and ethical analysis of four pig housing and management scenarios in the light of EU legislation and animal welfare outcomes. *animal*, 10(4), pp.687-699.

De Boer, J. and Aiking, H. (2011) On the merits of plant-based proteins for global food security: Marrying macro and micro perspectives. *Ecological economics*, 70(7), pp.1259-1265.

Dean (2021) Starbucks is finally dropping its surcharge for plant-based milk in the UK — but US customers will still have to pay extra [Online] Available at: <https://www.businessinsider.com/starbucks-drops-almond-oat-coconut-milk-surcharge-non-dairy-uk-2021-12?r=US&IR=T> (Accessed: 1 May 2022)

Department for Environment, Food and Rural Affairs (2019) *Agriculture in the United Kingdom 2018* [Online] Available at: <https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2018> [Accessed March 2021]

Euractive (2019) *Crunch Time for Factory Farming in Europe* [Online] Available at: <https://www.euractiv.com/section/agriculture-food/opinion/crunch-time-for-factoryfarming-in-europe/> [Accessed March 2021].

Faber, I., Castellanos-Feijóo, N.A., Van de Sompel, L., Davydova, A. and Perez-Cueto, F.J. (2020) Attitudes and knowledge towards plant-based diets of young adults across four European countries. Exploratory survey. *Appetite*, 145, p.104498.

Fennell, D.A. and Sheppard, V. (2021) Tourism, animals and the scales of justice. *Journal of Sustainable Tourism*, 29(2-3), pp.314-335.

Food and Agriculture Organisation (2019) *MEAT MARKET REVIEW: Overview of global meat market developments in 2018* [Online] Available at: <http://www.fao.org/3/ca3880en/ca3880en.pdf> (Accessed: March 2021)

Food Standards Agency (2014) *Costed extension to the Second Study of Infectious Intestinal Disease in the Community: Identifying the proportion of foodborne disease in the UK and attributing foodborne disease by food commodity* [online]. Available from: www.food.gov.uk/science/research/foodborneillness/b14programme/b14projlist/fs231043ext [Accessed May 2020].

Guachalla, A. (2021) Plant-based diets and destination image: a holistic approach. *Journal of Tourism and Cultural Change*, pp.1-20.

Gómez-Donoso, C., Martínez-González, M.Á., Martínez, J.A., Gea, A., Sanz-Serrano, J., Perez-Cueto, F.J. and Bes-Rastrollo, M. (2019) A provegetarian food pattern emphasizing preference for healthy plant-derived foods reduces the risk of overweight/obesity in the SUN cohort. *Nutrients*, 11(7), p.1553.

Gössling, S. and Hall, C.M. (2021) *The sustainable chef: The environment in culinary arts, restaurants, and hospitality*. London: Routledge.

Hemler, E.C. and Hu, F.B. (2019) Plant-based diets for personal, population, and planetary health. *Advances in Nutrition*, 10 (Supplement_4), pp.S275-S283.

Henning, B. (2011) Standing in Livestock's "Long Shadow": The Ethics of Eating Meat on a Small Planet. *Ethics & the Environment*, 16(2), pp.63-93.

Hiamey, S.E., Amenumey, E.K. and Mensah, I. (2021) Critical success factors for food tourism destinations: A socio-cultural perspective. *International Journal of Tourism Research*, 23(2), pp.192-205.

Hospitality and Catering News (2020) *In 2020 sustainability and veganism will become a moral responsibility for hospitality and catering*. [Online] available at:

<https://www.hospitalityandcateringnews.com/2020/01/in-2020-sustainability-and-veganism-will-become-a-moral-responsibility-for-hospitality-and-catering/> (Accessed: 30 April 2022)

Intergovernmental Panel on Climate Change (2019) *Climate Change and Land* [Online] Available at: <https://www.ipcc.ch/srccl/> (Accessed: March 2021)

Ioannidis, J.P., Henriksen, L. and Prochaska, J.J. (2013) Endgame: engaging the tobacco industry in its own elimination. *European journal of clinical investigation*, 43(12), pp.1366-1370.

Jang, Y.J. and Zheng, T., 2020. Assessment of the environmental sustainability of restaurants in the US: The effects of restaurant characteristics on environmental sustainability performance. *Journal of Foodservice Business Research*, 23(2), pp.133-148.

Janssen, M., Busch, C., Rödiger, M. and Hamm, U. (2016) Motives of consumers following a vegan diet and their attitudes towards animal agriculture. *Appetite*, 105, pp.643-651.

Jones, P. (2022) Plant-based Food in the Hospitality Industry: An Exploratory Case Study of Leading Fast Food Outlets. *Athens Journal of Tourism*, 9.

Jones, P. and Comfort, D. (2021) A Case Study of Animal Welfare and the UK's Leading Restaurant Companies. *International Journal of Management Cases*, 23(2), pp.34-45.

Joy, M. (2020) *Why we love dogs, eat pigs, and wear cows: An introduction to carnism*. Red Wheel.

Khatter, A., White, L., Pyke, J. and McGrath, M. (2021) Barriers and drivers of environmental sustainability: Australian hotels". *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 5, pp. 1830-1849.

Kirby, D. (2010) *Animal factory: The looming threat of industrial pig, dairy, and poultry farms to humans and the environment*. St. Martin's Press.

Kim, H., Rebholz, C.M., Hegde, S., LaFiura, C., Raghavan, M., Lloyd, J.F., Cheng, S. and Seidelmann, S.B. (2021) Plant-based diets, pescatarian diets and COVID-19 severity: a population-based case–control study in six countries. *BMJ Nutrition, Prevention & Health*, pp.bmjnph-2021.

Kröger, M. (2020) Deforestation, cattle capitalism and neodevelopmentalism in the Chico Mendes Extractive Reserve, Brazil. *The Journal of Peasant Studies*, 47(3), pp.464-482.

Kumar, S., Choudhary, S., Kumar, R., Kumar, A., Pal, P. and Mahajan, K. (2019) Animal Sentience and Welfare: An Overview. *Int. J. Curr. Microbiol. App. Sci*, 8(8), pp.635-646.

Leibler, J.H., Janulewicz, P.A. and Perry, M.J. (2017) Prevalence of serious psychological distress among slaughterhouse workers at a United States beef packing plant. *Work*, 57(1), pp.105-109.

Li, P.J., Sun, J. and Yu, D. (2017) Dog “Meat” Consumption in China: A Survey of the Controversial Eating Habit in Two Cities. *Society & Animals*, 25(6), pp.513-532.

Legrand, W., Sloan, P., & Chen, J. S. (2013). *Sustainability in the hospitality industry 2nd Ed: principles of sustainable operations*. London: Routledge.

Lehtinen, U. (2012) Sustainability and local food procurement: a case study of Finnish public catering. *British Food Journal*. 114 (8), pp. 1053-1071

Loy, L. (2015) Media Activism and Animal Advocacy: What’s Film Got to Do with It?. In *Critical Animal and Media Studies* (pp. 235-247). Routledge.

Magrini, M.B., Fernandez-Inigo, H., Doré, A. and Pauly, O. (2021) How institutional food services can contribute to sustainable agrifood systems? Investigating legume-serving, legume-cooking and legume-sourcing through France in 2019. *Review of Agricultural, Food and Environmental Studies*, 102(3), pp.297-318.

Martin M.J., Thottathil S.E. and Newman T.B. (2015) Antibiotics Overuse in Animal Agriculture: A Call to Action for Health Care Providers. *American Journal of Public Health*. 105 (12) 2409- 2410.

Martínez-Martínez, A., Cegarra-Navarro, J. G., Garcia-Perez, A., & Wensley, A. (2019) Knowledge agents as drivers of environmental sustainability and business performance in the hospitality sector. *Tourism Management*, 70, pp 381-389.

McKercher, B., Tolkach, D., Eka Mahadewi, N.M. and Byomantara, D.G.N. (2022) Choosing the optimal segmentation technique to understand tourist behaviour. *Journal of Vacation Marketing*, p.13567667221078240.

Melina, V., Craig, W. and Levin, S. (2016) Position of the academy of nutrition and dietetics: vegetarian diets. *Journal of the Academy of Nutrition and Dietetics*, 116(12), pp.1970-1980.

Morini, M. (2018) ‘Animals first!’The rise of animal advocacy parties in the EU: a new party family. *Contemporary politics*, 24(4), pp.418-435.

Motupalli, P. (2021) Applying the Science of Animal Welfare to Build More Responsible Food Supply Chains: Reflections from a Corporate Sustainability Professional. *Changing Human Behaviour to Enhance Animal Welfare*, p.97.

Nunkoo, R., Sharma, A., Rana, N.P., Dwivedi, Y.K. and Sunnassee, V.A. (2021) Advancing sustainable development goals through interdisciplinarity in sustainable tourism research. *Journal of Sustainable Tourism*, pp.1-25.

Office of National Statistics (2020) *Deaths Registered in England and Wales: 2019 Land* [Online] Available at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsregisteredinenglandandwalesseriesdrreferencetables> (Accessed: March 2021)

O'Callaghan-Gordo, C. and Antó, J.M., 2020. COVID-19: The disease of the anthropocene. *Environmental Research*, 187, p.109683.

Organisation for Economic Co-operation and Development (2018) *OECD-FAO agricultural outlook 2018-2027*. OECD Publishing.

Perez-Cueto, F.J. (2021) Nudging plant-based meals through the menu. *International Journal of Gastronomy and Food Science*, 24, p.100346.

Perez-Cueto, F.J. (2020) Sustainability, health and consumer insights for plant-based food innovation. *International Journal of Food Design*, 5(1-2), pp.139-148.

Petrovic, Z., Djordjevic, V., Milicevic, D., Nastasijevic, I. and Parunovic, N. (2015) Meat production and consumption: Environmental consequences. *Procedia Food Science*, 5, pp.235-238.

Phua, J., Jin, S.V. and Kim, J.J. (2020) Pro-veganism on Instagram: Effects of user-generated content (UGC) types and content generator types in Instagram-based health marketing communication about veganism. *Online Information Review*. Vol. 44 No. 3, pp. 685-704

Placzek, M., Christoph-Schulz, I. and Barth, K. (2020) Public attitude towards cow-calf separation and other common practices of calf rearing in dairy farming—a review. *Organic Agriculture*, pp.1-10.

Rabès, A., Seconda, L., Langevin, B., Allès, B., Touvier, M., Hercberg, S., Lairon, D., Baudry, J., Pointereau, P. and Kesse-Guyot, E. (2020) Greenhouse gas emissions, energy demand and land use associated with omnivorous, pesco-vegetarian, vegetarian, and vegan diets accounting for farming practices. *Sustainable Production and Consumption*.

Ritchie, H. and Roser, M. (2020) Environmental impacts of food production. *Our World in Data*. [Online]. Available from: https://ourworldindata.org/environmental-impacts-of-food?utm_source=sootoday.com&utm_campaign=sootoday.com&utm_medium=referral [Accessed March 2021]

Roeder, T. (2021) Beyond Diet: Veganism as Liberatory Praxis. In *Veg (etari) an Arguments in Culture, History, and Practice*. pp. 291-318. Palgrave Macmillan: Cham.

Sanchez-Sabate, R., Badilla-Briones, Y. and Sabaté, J. (2019) Understanding Attitudes towards Reducing Meat Consumption for Environmental Reasons. A Qualitative Synthesis Review. *Sustainability*, 11(22), p.6295.

Sandford, J. (2017) Reduce, Reuse, Go Vegan. *Penn Sustainability Review*, 1(9), p.3.

Sinclair, A., d'Eath, R., Brunton, P., Prunier, A. and Sandercock, D. (2018) Long-term effects of piglet tooth resection on molecular markers of inflammation and pain in tooth pulp. In *UFAW Animal Welfare Conference* (p. np).

Steinfeld, H., Gerber, P., Wassenaar, T.D., Castel, V., Rosales, M., Rosales, M. and de Haan, C. (2006) *Livestock's long shadow: environmental issues and options*. Food & Agriculture Org.

The Vegan Society (2020) *Statistics* [Online]. Available from: <https://www.vegansociety.com/news/media/statistics> [Accessed March 2021]

Viva (2021) *Slaughter Campaigns*. [Online] Available from: <https://viva.org.uk/animals/campaigns/slaughter/> [Accessed March 2021]

Wicks, D. (2011) Silence and denial in everyday life—The case of animal suffering. *Animals*, 1(1), pp.186-199.

Wiebers, D.O. and Feigin, V.L. (2020) What the COVID-19 crisis is telling humanity. *Neuroepidemiology*, p.1.

World Animal Protection (2020) *Animal Protection Index* [Online]. Available from: <https://api.worldanimalprotection.org/#> [Accessed March 2021].

World Health Organisation (2017) *Stop using antibiotics in healthy animals to prevent the spread of antibiotic resistance* [Online]. Available from: <https://www.who.int/news/item/07-11-2017-stop-using-antibiotics-in-healthy-animals-to-prevent-the-spread-of-antibiotic-resistance> [Accessed March 2021].

World Meteorological Organisation (2021) New climate predictions increase likelihood of temporarily reaching 1.5 °C in next 5 years [Online] Available from: <https://public.wmo.int/en/media/press-release/new-climate-predictions-increase-likelihood-of-temporarily-reaching-15-%C2%B0c-next-5> [Accessed August 2021]

Wu, Z., Mohammed, A. and Harris, I. (2021) Food waste management in the catering industry: Enablers and interrelationships. *Industrial Marketing Management*, 94, pp.1-18.

Xie, X., Huang, L., Li, J.J. and Zhu, H. (2020) Generational differences in perceptions of food health/risk and attitudes toward organic food and game meat: The case of the COVID-19 crisis in China. *International journal of environmental research and public health*, 17(9), p.3148.

Ye, T., & Mattila, A. S. (2021) The effect of ad appeals and message framing on consumer responses to plant-based menu items. *International Journal of Hospitality Management*, 95, 102917.

Zhou, X., Perez-Cueto, F.J., Dos Santos, Q., Bredie, W.L., Molla-Bauza, M.B., Rodrigues, V.M., Buch-Andersen, T., Appleton, K.M., Hemingway, A., Giboreau, A. and Saulais, L. (2019) Promotion of novel plant-based dishes among older consumers using the ‘dish of the day’ as a nudging strategy in 4 EU countries. *Food Quality and Preference*, 75, pp.260-272.