



Principles of foodservice ethics: a general review

Principles of
foodservice
ethics

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Abstract

Purpose – Moral aspects of food are gaining increased attention from scholars due to growing complexity of the food system. The foodservice system is a complex arrangement of stakeholders, yet has not benefited from similar scholarly attention on the moral facets. This gap is of significance given that the foodservice system has increased in importance with the larger proportion of food consumed in foodservice environments. This paper aims to focus on the foodservice system with the goal of applying moral perspectives associated with the theoretical discussion on the principles of food ethics.

Design/methodology/approach – Food ethics is described within the theoretical framework of three principles, namely, autonomy, justice and well-being. These ethical principles are reviewed in context of the foodservice system comprised of food distribution (supply chains), preparation (foodservice establishments) and consumption (consumer demand). The review also includes international perspectives on foodservice system ethics to assess relativism (versus universalism) of moral issues.

Findings – As the foodservice system increases in complexity, greater discussion is needed on the ethics of this system. This study observes that ignoring ethical principles can negatively impact the ability of consumers, businesses and communities to make informed choices, and on their well-being. Alternatively, a focus on understanding the role of food ethics can provide an anchor for research, practice and policy development to strengthen the foodservice system. While these moral principles are universal truths, they will require relative introspection globally, based on local experiences.

Originality/value – This paper presents a moral principle-based description of food ethics that incorporates the various components of the expanding foodservice system.

Keywords Justice, Autonomy, Ethics, Well-being, Foodservice

Paper type Research paper

1. Introduction

Food ethics is concerned with the morality of food production and consumption (Zwart, 2000). Food and agricultural ethics is “the study of how virtue, vice, rights, duties, benefits and harms arise in connection with how we produce, process, distribute and consume our food” (Thompson, 2015, p. 12). In other words, food ethics is about what is right and wrong in the production and consumption of food. Ethical food systems must, therefore, address the inherent moral value of healthy food, enhanced human well-being and dignity, human health, natural resources and nature (Food and Agriculture Organization [FAO], 2001).

Recently, the philosophical “right and wrong” of food is receiving more thoughtful consideration (Kaplan, 2012; Chiles *et al.*, 2018). Contemporary global crises associated with the food system, such as global warming (Kalt *et al.*, 2020), the obesity pandemic (Béné *et al.*,

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2020) and disappearance of small- and medium-sized farming communities (Fanzo, 2017), have amplified the interest in this subject (Peregrin, 2011). Increased distance between the production and consumption of food is another reason for this revived focus on food ethics. As a consequence, there is growing consensus around the need for a dialogue to improve our knowledge, practice and laws related to food distribution, production and consumption (Coff and Kemp, 2014; Kjærnes, 2012).

The consumption of food away from home, particularly in foodservice environments, has consistently increased over the past several decades, which is evident in the revenue growth of the global restaurant industry (National Restaurant Association [NRA], 2019; Research and Markets, 2019). Given this increased importance of the foodservice system, and the system's complexity, there is value in addressing the role of moral principles in this context (Saksena *et al.*, 2018).

This paper presents a targeted yet a holistic review extending the theoretical framework of moral principles, and how they can advance food ethics in the foodservice system. The foodservice system is characterized to include food production/distribution, sourcing and suppliers, production firms (e.g. restaurants) and the consumer (Armstrong and Kivirist, 2015; Carino *et al.*, 2020). This review expands on the theoretical framework proposed by Mephram (2000), to describe ethics in the foodservice system in context of the following food ethics principles: autonomy, justice and well-being and highlights the complexity of ethical challenges facing the foodservice system. Furthermore, the paper considers international experiences associated with these ethical principles in the foodservice system, emphasizing the notion of relativism of ethical boundaries. The discussion is concluded with implications for future research.

2. Methodology and approach

The food ethics principles of autonomy, justice and well-being (Mephram, 2000) guided the framing of this paper. We extended this theoretical framework by incorporating contextual aspects of the foodservice system, defined as the continuum of supply chain sourcing, foodservice business operations and consumer consumption (Sharma *et al.*, 2014) (Figure 1). The multiple aspects were included to represent the multi-faceted functional activities that together define the foodservice system. As far as possible, the foodservice system contexts were included under each ethical principle.

Areas that were incorporated in this review were based on their importance identified in prior literature in context of the food ethics principles and foodservice system dimensions. For instance, consumer's autonomy is associated with supply chains and food labeling; consumer justice with foodservice employment, labeling and nudging the consumer to make certain choices deemed appropriate by the system. Then consumer well-being with sustainability in foodservice, food safety and nutritional health of the consumer. Moreover, each of foodservice contextual areas were considered broadly to ensure a comprehensive viewpoint. For instance, broader implications were emphasized associated with resource affordability, and constraints beyond money, such as those of time and effort (Jabs and

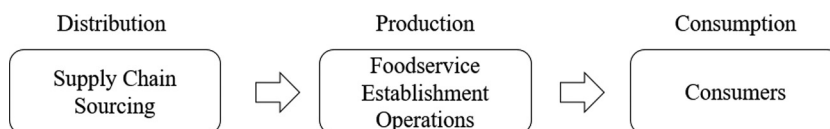


Figure 1.
Foodservice value
chain system

Note: Adopted from Sharma *et al.*, 2014

Devine, 2006). The lack of discussion in any of these contexts represents a gap in the literature and has been identified as areas for future research later in the paper.

Articles for review were identified through searches of Google Scholar, ProQuest, Social Sciences abstracts and others by using a combination of keywords representing the food ethics principles, foodservice system continuum and areas of general review identified above. Given the heterogeneity of foodservice experiences around the world, it was also important to bring international perspectives into this discussion. This can be a precarious approach, one that may appear exclusive or unrepresentative, yet our intention was neither. The selective international examples included in this review are from the USA (food safety, supply chain, consumer affordability, employees), South Africa (labeling) and India (obesity), to provide insight into relative versus universal nature of ethical principles. We hope that these international experiences will provoke more thought than if only a singular national or even regional-centric review was conducted. We reviewed papers published in peer-reviewed journals and governmental and non-governmental agency reports. All efforts were made to keep the references recent unless necessary to cite seminal articles. This resulted in 90% of the citations from the past 15 years.

3. Autonomy

Autonomy in the food system is associated with the freedom to adopt (production and distribution processes), and also the respect for consumers to make independent choices (Mephram, 2000). One way that autonomy in the food system has been highlighted is around globalization versus localization of food supply chains (Hinrichs, 2003), raising issues of disparities and weaknesses inherent in this system (Ikerd, 2020). For consumers, autonomy has been associated with making unconstrained and informed food choices (Bonotti, 2014) based on information about production, distribution and processing through food labels and restaurant menus. This section focuses on these two aspects of the foodservice system – supply chains and labels – from the perspective of production/distribution, foodservice businesses and the consumer.

3.1 Supply chains

A simplified version of defining food supply chains can be clustering around two types of systems: a global supply chain and more directly marketed local supply chains (Stevenson and Pirog, 2008). In reality, there exists greater heterogeneity created by a blend of global, national, regional and local supply chains. The ethical notions associated with supply chains are several. For instance, local supply chains require scaling up to meet local demand, however, increased volume of the product should also ensure sustainable production practices (Friedmann, 2007) while preserving the uniqueness of product quality and consumer appeal. Another concern related to food supply chains is of food safety and traceability (Coff *et al.*, 2008).

The ethical question that has emerged is the need for information related to aspects of the production of food that is essential for informed consumer decision-making (Anthony, 2018; Lu and Chi, 2018; Manning *et al.*, 2006). Such information is not easily available and accessible to the consumer, particularly in imported foods (Wognum *et al.*, 2011). There are also concerns related to social implications of supply chains, such as the impact supply chain disruptions can have on food access, leading to food deserts (Bitler and Haider, 2011). Supply chain disruptions can also impact the type of menus foodservice establishments are able to provide in certain locations, particularly those in lower-income neighborhoods (Lee and Caine-Bish, 2021).

In summary, foodservice supply chains can address ethical issues by conducting contextual, and comprehensive risk analysis and planning, thereby increasing transparency and enhancing risk management strategies (Gallear *et al.*, 2015). There is an extensive literature in the supply chain field on understanding risk management, including redundant sourcing, dual sourcing and contingency planning (Peck, 2006; Ho *et al.*, 2015). There is some focus within the food systems literature on risk reduction and resilience in the food or agri-supply chain, but rarely is this presented as an issue critical to human survival or economic inequality. For example, resiliency research in the food supply chain literature usually addresses business continuity (i.e. food supply chain continuity in times of crisis) but ignores the effects of specific food supply and its impact on communities (Zorzini *et al.*, 2015). Therefore, while valuable, the application of mainstream supply chain management principles without concern for the unique ethical considerations, particularly associated with food and environmental justice, in global foodservice system, is unrealistic and perhaps irresponsible.

3.2 Labeling

While early observations suggest labeling can enhance decision outcomes (Zlatevska *et al.*, 2018), several concerns remain related to the content and framing of this information (VanEpps *et al.*, 2016). In the foodservice system, labels relay information to two types of users: the direct consumer through menu item information (e.g. nutrition, sourcing, allergens, etc.) (Kwon *et al.*, 2010); and foodservice buyers that rely on package labels of ingredients used to create meals.

In the USA, the Food and Drug Administration's 2014 ruling requires "[...] certain restaurants and similar retail food establishments [...]" to provide necessary nutritional information for consumers (Food and Drug Administration [FDA], 2021). Additionally, labeling is now gaining the attention of consumers and lawmakers across the world, including in emerging economies of Asia, Latin America and the African continent. Despite some success in Europe and North American, labeling improvements are not universal – for instance, in Africa, 44% of South African consumers do not see labeling and sustainability as a priority while 67% acknowledged that they have very little knowledge of food labeling (Belgian Development Agency, 2013). A comparable survey of Americans by the FDA in a non-foodservice setting showed that 22% of those surveyed “rarely” or “never” used labels when deciding to buy a food product (Lin *et al.*, 2014). Research addressing the effectiveness of nutrition information on restaurant menus is still lacking and more study is needed to better understand “labeling” in that context.

Due to urbanization and nutrition transition more South Africans are adopting a Western diet and are eating out and consuming foods from restaurants, fast food outlets and street foods (Koen *et al.*, 2016). This has increased the consumption of high fat, salty, sugary and energy-dense foods with larger portion sizes, which contribute to overweight, obesity and non-communicable diseases (NCDs) (Claasen *et al.*, 2016). Some fast food outlets do provide nutrition information and labeling guidelines can ensure them to be appropriately framed for all types of consumers. However, while the South African labeling regulations (R642) of 2007 and (R146) of 2010 are targeted at increasing information clarity and functionality of labels (Jacobs *et al.*, 2011), the low nutrition education levels of South African consumers leads to widespread misunderstanding food labels, potentially impacting food choices. According to research conducted by Van der Merwe and Venter (2010) and McEwan *et al.* (2015), several problems were identified by consumers regarding food labeling in South Africa. Labels can place broad claims of “GM-free” or “organic” while containing minimal levels of genetically modified or organically produced ingredients. The “catch-all”

disclaimers for allergens “may contain” can be confusing. Food additives such as those for flavoring, often represented by complex notifications, do not differentiate animal from vegetable sources. Also, the impact of presenting information ingredient measures on labels (percentages vs absolute quantities) needs to be better understood, as consumers and foodservice employees may struggle to interpret quantitative information on food labels, preferring more simple graphical information (Koen *et al.*, 2016).

Nutrition education in South Africa has been done on an *ad hoc* basis and its impact on knowledge and behavior change of consumers and the foodservice industry has not been evaluated enough. Dietary or health messages on labels do not reflect the country’s health problems (Love *et al.*, 2021). The South African Food Based Dietary Guidelines, first published in 2003 and revised in 2013, contain science-based messages aimed at the South African population to change the eating behavior toward optimal diets and prevent NCDs (Vorster *et al.*, 2013). The National Department of Health (NDoH) endorsed the National Guidelines for healthy meals into workplaces and public health establishments (NDoH, 2016; NDoH, 2010), yet the foodservice industry in South Africa is not fully equipped with detailed, simplified information on nutrition labeling.

Information content and framing on labels need to improve for better communication (Lundeberg *et al.*, 2018) and consumers need to be better informed through education programs on reading and comprehending this information (Van der Merwe and Venter, 2010). Awareness through effective labeling could facilitate informed food choices, given the universality of such information needs (Koen *et al.*, 2016). More research is needed with both country-specific evidence and international comparisons to adopt cost-effective information provision strategies that can ensure autonomy of choice in the foodservice environment.

4. Justice

While there are several perspectives on the issue of justice in the broader food system that can be applied to the foodservice system, we highlight our review from the point of view of two critical stakeholders, namely, justice for food providers and justice for consumers. Social justice for food workers is an issue that is increasingly being highlighted, particularly for employees in the foodservice industry (Lo and Jacobson, 2011). Another perspective on social justice is access, security and affordability of food (Vallianatos *et al.*, 2010), which have been associated with food deserts (Donald, 2013), poverty (Cafer and Kaiser, 2016) and race inequality (Swartz *et al.*, 2018). These injustices in the food system have largely been associated with resource scarcity or money. In addition to monetary resources other resource constraints such as time and effort can also lead to inaccessibility of food, despite its abundance. These issues remain relatively less explored in the literature (Jabs and Devine, 2006). Further adding to the debate over justice are novel practices that can “prod” people to make decisions, also popularly known as “nudges.” The ethics of nudges remains relatively unexplored despite their increased prevalence in the food system. This section focuses on employment from the perspective of a resource supply and foodservice operations; and nudging and time constraints from the perspective of the consumer.

4.1 Ethics of foodservice employment

The foodservice industry employs one out of every seven working individuals in the USA (National Restaurant Association [NRA], 2019). Given the size and magnitude of the industry, foodservice is often an individual’s first employment experience (NRA, 2019). Yet, little research exists that investigates ethical issues surrounding the labor that drives foodservice operations.

Ethical treatment of workers is viewed as an important component of the broader food ethics conversation (Alkon and Agyeman, 2011). Employees in the foodservice system engage in a range of activities including preparation, service, sales and delivery. Unfortunately, some foodservice employers subject employees to unsafe working conditions, pay poverty-level wages and deny employees access to basic benefits (Barnhill and Doggett, 2018); the average wage for foodservice workers in the USA is \$25,030 (U.S. Census Bureau, 2018). This means that those individuals at or below the average can likely be classified as low-income households according to poverty thresholds in the USA (National Consumer Credit Protection [NCCP], 2018).

Low wages can cause hardships for many in the foodservice workforce. According to the U.S. Census Bureau (2018), approximately 8.7% of employees working in the foodservice industry experience food insecurity, meaning that they at some point during the survey period lacked access to enough food for an active, healthy lifestyle. Approximately 5.4% reported that they were unable to provide enough food for their children. The Bureau of Labor Statistics estimated that 11.8 million people were employed in the foodservice industry in 2016, thus approximately one million hospitality employees may have experienced food insecurity at some point during the year, and nearly 634,000 may have experienced food insecurity for their children.

If food ethics includes the value of enhanced living and human health and well-being, then it is necessary to consider the standard of living of foodservice workers. The ethical issues surrounding the treatment of foodservice workers can be approached from many perspectives, and these questions may have different answers depending on one's role in the foodservice system, but the viewpoint of the employer is crucial. For a firm, it is difficult to deal with ethical issues for two reasons. First, "issue equivocality" can occur if managers have difficulty understanding the concerns they face, which makes it difficult to weigh differing interpretations of an issue (Sonenshein, 2016). Second, given the legal and financial requirement to focus on shareholder value, "issue illegitimacy" can occur if decision-makers feel that addressing a social issue falls outside of the legitimate bounds of a firm's activities (Dougherty and Heller, 1994).

There is a social justice argument that firms should provide living wages sufficient to allow employees to enjoy a reasonable standard of living (Alkon and Agyeman, 2011). Likewise, neoliberal economic arguments can be made that markets set wage rates, and that employers should not raise wages higher than the market will bear (Thompson, 2015). These conflicting viewpoints increase issue equivocality and issue illegitimacy among decision-makers, often leading to inaction (Sonenshein, 2016). Innovative and creative approaches to this dilemma are needed.

Research into the ethics of foodservice employment could focus on issue framing from a managerial context. There are reasons to do so. Employee turnover in the US foodservice industry was at 74.9% versus 48.9% for rest of the US private sector (NRA, 2019). When does the treatment of employees become an issue worthy of the attention of foodservice managers? How does the issue of "sustainability" translate to sustainability of the foodservice labor pool? (Meuris and Leana, 2015). Are consumers aware of ethical issues in foodservice employment? If not, why? If so, how do they react? Is there something unique about foodservice employment that separates it from other low-wage, low-skill work, which contributes to distinctive ethical dilemmas? Just as the sustainable foodservice system must meet the safety, health and nutrition needs for consumers, it must also provide a livelihood for farmers and employees, and a safe and hygienic workplace, that ensures vibrant local economies and diversity (Reisch *et al.*, 2013).

4.2 Ethics of nudging consumers

While many have called upon foodservice managers to serve healthier foods, this is all for naught if healthy options go unpurchased. The promotion of behavioral change in restaurants using standard economic instruments, such as labeling, tax and subsidies or product differentiation has had limited effectiveness (Saulais, 2015). For example, initiatives for mandatory calorie labeling on restaurants menus in the USA have had mixed results to improve the healthiness of food choices (VanEpps *et al.*, 2016).

Behavioral economics theories of individual decision-making have provided insights into these limits, suggesting complementary approaches for the promotion of healthier and more sustainable food choices and raising, in turn, new ethical questions for the foodservice sector. Based on this view, choices that are immediate, frequent and repeated, such as food choices, are not solely due to a utility-optimization program (as predicted by the standard economic theory). Rather, consumers make decisional shortcuts (heuristics) that rely on the way their choice task is defined (Schulte-Mecklenbeck *et al.*, 2013; Grüne-Yanoff and Hertwig, 2016). “Nudges” (Thaler and Sunstein, 2009) are based on this principle: small changes in the environment of decision or “choice architecture” (e.g. display of choices in a cafeteria, restaurant menu, etc.) are made by organizations to help individuals make choices that are deemed beneficial.

Implementing nudges in foodservice settings raises a number of ethical issues (Blumenthal-Barby and Burroughs, 2012). While Nudging implies the existence of an optimal path, food choices also depend on the goal of the intervention. However, interventions generally consider only one specific goal – for example, nutrition or environment – but rarely take into account the aggregate impact on overall societal welfare, such as personal independence to make choices (Engelen and Nys, 2020).

Nudging is also premised upon a very specific set of assumptions, i.e. that individuals have a limited ability to make logical choices projected for future consequences. This approach fails, however, to consider other possible components of utility, as well as social influences on decision making, such as the motivations and goals of each individual and/or the use of social intelligence (Barton and Grüne-Yanoff, 2015). Perhaps the most important ethical question concerns the legitimacy of the goal-setter and their capacity to identify rational choices for the consumer. Are policy-makers and/or foodservice professionals entitled to make such decisions for consumers? If so, why would they be more immune to the very biases they are trying to divert consumers from? Furthermore, evaluating the cost of “opting out” option can receive further attention from nudge designers.

The second set of ethical questions relates to the targeting of nudges toward populations whose consumption habits are potentially at risk. For instance, the Food Safety and Security Authority of India (FSSAI, 2017) initiated the Eat Right India campaign to empower citizens to make good choices and nudged the food industries to reformulate their products. However, the overall efficiency of such nudges remains insufficiently demonstrated, largely due to poor reproducibility of results and weak theoretical justifications (Johnson *et al.*, 2012; Szaszi *et al.*, 2018; Wilson *et al.*, 2017). Individual motivations for healthy eating could thus also play a role as a moderator in the effects of nudges. Furthermore, it is unclear whether certain types of populations could be more sensitive to the use of certain types of heuristics (Cadario and Chandon, 2020). Therefore, the efficiency of nudge interventions to target intended groups is disputable, as is their absence of impact on non-targeted groups.

To design relevant, justifiable and acceptable nudges, the evaluation of costs and benefits of nudges must be addressed thoroughly (Johnson *et al.*, 2012) and compared with other approaches, both at individual and societal levels. Furthermore, economic research must better qualify the nature of rationality in food choices, provide stronger evidence of the

links between context and the use of heuristics and acknowledge the specificities of global foodservice contexts.

4.3 Ethics of constraints – time

Money, effort and time are essential resources for food choice and consumption (Sharma, 2020), yet resource constraints can burden the decision-making process – a reason why nudges can change behavior. Therefore, convenience is a recurring theme in the food choice and consumption literature (Pula *et al.*, 2014) and the central issue related to convenience is *time*, a factor that is now recognized for its importance in food choice and consumption decisions (De Marchi *et al.*, 2016). Time can be a self-imposed constraint; for instance, choosing to eat out versus spending time cooking at home. In other food consumption environments, time limits can be imposed on the decision, such as office lunch breaks or school lunches. Furthermore, in certain instances, time constraints can be due to limitations in design of physical environments (Sharma *et al.*, 2017).

While workday meals necessitate further study in these contexts, school lunch time, in particular, has attracted research attention due to the nature of risks associated with detrimental impact on children's health and well-being, and a forced imposition of time constraints often due to operational inefficiencies. Conklin and Lambert (2001), for instance, pointed out the importance of time spent by children in school lunch service lanes in the context of a healthy eating environment for the children. Recent research shows that students feel time-constrained during school lunches and that such constraints could impact their food choices (Sharma *et al.*, 2017). In a related study, Cohen *et al.* (2015) found that students who had 20 min or less were significantly less likely to pick a fruit to eat at lunch. The students who had less (vs more) than 25 minutes for lunch were also likely to consume less of their entrée, milk and vegetables. Often policy can provide contradictory recommendations for practitioners. As an example, while USDA guidelines require schools to serve more fresh fruits and vegetables, however, students need more time to consume such foods but guidelines do not make any specific recommendations for how much time students must get for lunches.

Other studies have similarly found that mealtime allocated toward eating does impact the food choices of adolescents (Videon and Manning, 2003). While changes to certain processes can increase accessibility, process efficiency alone will not be sufficient (Sharma *et al.*, 2018). Foodservice businesses need also to consider how the physical design of the facilities are either facilitating or impeding the food choice process. Food decisions need not be trivialized compared to other competing needs for resources, whether monetary investments or simply time and effort to reevaluate and recreate processes and physical facilities.

Future research on this issue may benefit from adopting a contractual perspective by considering these as agency relationships (Ross, 1973), requiring the agents (restaurants, foodservice businesses) to act in good faith to ensure principals (consumers) can make informed decisions (Sumner, 2013). Time is an important resource needed for food choice and consumption. If time constraints are being imposed due to factors outside the control of the individual, then those could be unjustified unless the individual is well informed to counteract such resource constraints. Additional research is also needed to understand time allocation across ages, gender and other demographic descriptors.

5. Well-being

Well-being is a difficult concept to define, yet one definition is the balance or equilibrium of resources and challenges (Dodge *et al.*, 2012). There needs to be a balance between resource

needs and a responsible relationship with the system from the perspective of different stakeholders – needs of one may not be the same as of others (Helne and Hirvilammi, 2015; Ares *et al.*, 2016). Well-being as a balanced use of resources can be encapsulated in the concept of sustainable development, as there exists a functional relationship between those two concepts (Helne and Hirvilammi, 2015). Balanced and sustainable approaches in the foodservice system could ensure broader well-being for stakeholders. However, this requires action of both providers (restaurants and foodservice firms) and the consumers (Friedmann, 2007). Sustainable production practices can ensure broader well-being of the foodservice system (Filimonau *et al.*, 2017), such as restaurants demonstrating responsible actions toward social issues and the environment, consumers having access to safe food (Kibret and Abera, 2012) and responsible consumption that prevents both undernutrition and overnutrition (de Silva-Sanigorski *et al.*, 2011). This section focuses on sustainability from the perspective of production/distribution and foodservice businesses; and health and food safety from the perspective of the consumer.

5.1 Sustainability in foodservice operations

For decades, sustainability was understood as the use or overuse of natural resources (Hunter and Rinner, 2004). In recent years, however, researchers have increasingly recognized that sustainability has multiple elements – economic, social and environmental elements (Maloni and Brown, 2006). Effective sustainable practices are those that balance these three elements (“pillars”) of sustainability for all stakeholders, holistically and transcending geographic spaces (Gibson, 2006). Emphasizing only one aspect of sustainability can easily lead to unintended outcomes.

Therefore, acknowledging the vast complexities of the food system is a critical first step toward facilitating sustainability. The extant literature supports this view suggesting that restaurant stakeholders are broadly motivated by perceived environmental, economic/financial, social and health benefits (Gibson, 2006). Though there are perceived barriers (typically costs) related to why restaurant operators and managers do not implement sustainability practices (Chou *et al.*, 2012), given the scale and scope of the restaurant industry, the opportunities of positive impacts on the environment and the society are immense. Restaurant industry sales, for instance, were \$863bn in 2019, which represents 4% of the US gross domestic product (NRA, 2019) and employs a significant share of the workforce, specially the younger populations.

Employment practices that focus on minimum wage (discussed in a previous section), working conditions and skill development can all ensure sustainable development of the foodservice system. Another direct impact on collective sustainability of the system is the trends associated with food consumption and food waste. The foodservice industry can take leadership in balancing the demand for high energy density foods that can significantly negatively impact the environment (Halloran *et al.*, 2014) and also individual health (see next section), with lower energy density plant-based diets.

Demand shifts in the foodservice industry can create the necessary incentives for changes in the global food supply chains that will need to be closely monitored for unintended consequences. There is, for example, a shift in demand toward seafood in restaurants and other retail channels (Love *et al.*, 2021). Even though fishing does not contribute to greenhouse gasses, there are several aspects of the large fishing industry that need reevaluation (Haas *et al.*, 2019). While a shift to greater reliance on sustainable seafood could be a positive dietary development, the foodservice system needs to remain alert and engaged in demanding sustainable and responsible fishing practices. Food waste is another area where the foodservice industry can exert greater vigilance (Bharucha, 2018). The

industry has the potential to positively impact food waste by redesigning menu offerings, recreating meal options and incorporating smart portioning and environmental design features. We believe these are positive trends for the industry and policy-makers to facilitate and enable behavioral change toward greater emphasis on sustainable practices.

5.2 Health, overnutrition and obesity

Food consumption directly impacts health and well-being on an individual level but also collectively impacts society. For instance, the rising obesity epidemic is a global public health concern. The World Health Organization (WHO) reports a worldwide prevalence of 1.3 billion overweight and 600 million obese individuals and 38 million obese children under five years of age (World Health Organization [WHO], 2020). Developing countries present “risk transition” characterized by economic, demographic and nutrition transition that further raises concern over the intake of calorie-dense and ultra-processed foods (UPF) among young adults (Monteiro *et al.*, 2019; Popkin *et al.*, 2012). Targeting certain global markets has resulted in increased consumption of UPF and a subsequent increase in obesity and non-communicable diseases in these regions (Baker and Friel, 2016).

As an example, in India, the National Family Health Survey (NFHS) IV reports a two-fold or more increase in overnutrition in more than 20 States (India fact sheet, 2016). This phenomenon coexists with an overall 35% of wasting (thinning) and 21% stunting among children under 5 years of age. In many other developing countries, obesity is not restricted to the affluent population; overweight and obesity is a common feature among middle and lower-income groups. In these settings, poor health and underlying medical conditions, along with changing lifestyles in adulthood, are factors that contribute to obesity (Pingali *et al.*, 2019). Some of the most significant contributors to the obesity epidemic in India, as in many other developing countries, are the increased consumption of fast food and UPF, food choice resulting from globalization and urbanization, socio-cultural causes such as the urge to mimic affluent trends and peer pressure (d’Amour *et al.*, 2020; Gupta *et al.*, 2012).

Fast food restaurants use innovative marketing strategies to attract young consumers (Keshari and Mishra, 2016), leading to increased consumption of energy-dense foods among young adults and resulting in overnutrition (Gupta *et al.*, 2012). In India, for instance, the food balance sheet, together with epidemiological studies, have confirmed a substantial increase in calorie intake from fat and animal-sources, often associated with a high body mass index (BMI; Satija *et al.*, 2015). This is due, at least in part, to the fat, sugar or salt added to processed foods.

Fast food and UPFs are intertwined with one another. The typical fast-food menu adopted in international contexts, such as in India, can offer the traditional (local) fast foods and UPFs, along with sweetened sugar beverages. These products are available in restaurants that are becoming increasingly accessible to young adults and school children. Furthermore, this dietary trend, when combined with low physical activity, results in a greater BMI (Gulati *et al.*, 2013; Patel *et al.*, 2018). A recent review of obesity among teenagers from the Southeast Asian region identified the addition of extra salt, eating out and eating while watching television as major contributing factors to obesity (Poobalan and Aucott, 2016). Thus fast food restaurants and snacking culture have been identified as environmental risks associated with obesity and overnutrition. Given the significant proportion of food consumed outside our homes, the foodservice system will need to recognize its responsibility to offer healthy meal choices to consumers as a norm rather than a passing consumer trend.

5.3 Foodborne illness in foodservice operations

Another important issue in foodservice ethics is food safety. The literature related to food safety includes many topics, from food microbiology to employee and managerial behavior. Absent from these discussions is a focus on the ethical issues concerning food safety. In the USA, statistics indicate 3,000 Americans will die each year from a foodborne-related illness (Centers for Disease Control [CDC], 2018). Of all reported foodborne illnesses, 90% are attributed to mistakes made in a foodservice operation (CDC, 2014).

The top three contributing factors for foodborne illness in the USA, and developing countries are improper holding temperatures, poor personal hygiene and cross-contamination, and have remained unchanged for years (Bean and Griffin, 1990; Kubde *et al.*, 2017). Individual practices within each of these areas often relate directly to food handlers' knowledge of food safety and the ethical choices that they make to follow the recommended practice or not (Food and Drug Administration [FDA], 2010; Kwon *et al.*, 2014; Roberts *et al.*, 2008; Roberts *et al.*, 2011; Roberts *et al.*, 2014; Yadav *et al.*, 2015). In the aggregate, results suggest that there is room for improvement in both employee and managerial practices.

Foodservice providers, managers and employees represent the last line of defense for customers or participants, all of whom depend on the industry to serve safe, wholesome food. If proper practices are not followed and foodborne illness results, customers can fall seriously ill or die. In both developed and developing nations, outbreaks of foodborne illness among children who participated in school foodservices are often reported, which underscores the need for strategies to prevent outbreak of infections (Lee and Greig, 2010). In 2010, the Food and Drug Administration (FDA) (2010) published the results of a trend analysis of foodborne illness risk factors in selected foodservice operations. The report compared results from their 1998 and 2008 observational studies. Fast food and full-service restaurants and elementary schools showed a significant increase in the overall non-compliance percentage from the 1998 baseline data to the 2008 data. Hospitals and nursing homes, the two types of foodservice operations that serve those most susceptible to foodborne illness, showed no significant increase (Food and Drug Administration [FDA], 2010).

Foodservice operations need to include a firm commitment to food safety in their mission and ensure that the actions of managers and employees accurately reflect this mission. Employees can be empowered and encouraged to report issues to managers, but once reported, managers must be empathetic to employee concerns and act to resolve the issues. Ethical decisions related to food safety must override other considerations, for example, customer wait times, financial issues, lack of time and need for increasing financial performance with undue considerations to consumers' well-being. A holistic approach to food safety such as ensuing a positive food safety climate is needed in foodservice operations (de Andrade, Stedefeldt, Zanin, Zanetta and da Cunha, 2021).

Continued research related to the ethical choices made by managers and employees in the food safety context is necessary and needs to focus on decision-making processes, particularly targeted to sustain and motivate behavior change related to food safety practices. Furthermore, research needs to explore strategies that will ensure a food safety culture within the organization extend from top-level management to line employees.

6. Discussion

The purpose of this review paper was to provide an overview of moral perspectives related to the foodservice system as a whole. We expanded the theoretical framework of ethical decision-making, encompassing the principles of autonomy, well-being and justice

(Mephram, 2000; Manning *et al.*, 2006) to incorporate priority areas in the foodservice system (Figure 2).

The domain of *autonomy* was explored through the lenses of supply chain and food labeling/restaurant menus. This overview was focused on the need to ensure functional association between stakeholders; and guidelines of ethical boundaries for local and global supply chains based on comprehensive risk assessment. The second domain in the framework linked priority areas such as foodservice employment, nudging consumers and decision constraints (e.g. time) to the principle of *justice*. The *well-being* domain recognized sustainable ethical practices, food safety, overnutrition and obesity as key areas for action. Summary of these discussions are also presented in Table 1.

Foodservice represents a large and quickly growing share of the overall food system, yet there exists relatively little research in this context in the domains of ethics; despite recent evidence that incorporating ethics can positively impact market and eco-performance, and potentially create a competitive advantage for foodservice businesses (Kim *et al.*, 2018).

7. Future research implications

Below, we summarize what we believe to be the most promising questions for future inquiry from the perspective of our ethical decision-making framework of autonomy, justice and well-being for the foodservice system.

7.1 Autonomy

The ethical dimension of autonomy emphasizes the need to allow individuals to make informed decisions for themselves. As we have demonstrated, many aspects of the foodservice system have implications for individual autonomy. For example, future research could investigate ways in which food safety and traceability information can be made conveniently accessible for producers and consumers to allow informed food decisions. More

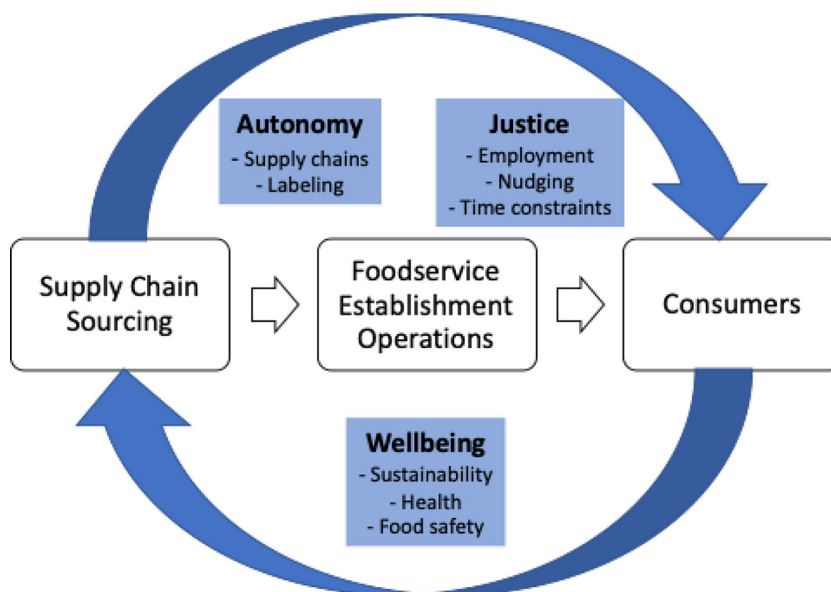


Figure 2.
Ethical decision-making framework for foodservice system

Review of priority areas in food ethics	Gaps in theory and practice	Strategies to bridge the gap	Implications for research	Impact on society
<i>Autonomy</i> Supply chain	Often conceptualized from consumers' perspective Global versus local supply chain	Ensure functional association between stakeholders; comprehensive risk assessment Design readable labels, comprehensible to the stakeholders	Provide guidelines for ethical boundaries Testing methods to improve transparency of content and alternating ingredients for nutrients; increasing transparency	Well-being, autonomy and justice in foodservice Improved awareness among stakeholders to maximize preferences
Food/menu labeling	Poor awareness among consumers, risk behavior of not reading labels, misleading information and legislation gaps	Establish standard protocols for workplace ethics equally for all stakeholders Protocol inclusive of social, financial, other needs Adhere to ethics protocols at all levels of employment Develop stronger theoretical justification for nudges/healthy eating interventions	Assess issues of equivocality and illegitimacy Should policy-makers/ foodservice professionals influence such decisions?	Enhanced living and human health and well-being of foodservice workers Cost-benefit of nudges at individual and societal level
<i>Justice</i> Foodservice employment	Standard of living, ethical treatment and issue illegitimacy of workers in foodservice establishment; need for consumer awareness about ethics in employment	Identify strategies for identification and management of constraints Develop a comprehensive and holistic sustainability agenda for foodservice system Assess risk mitigation strategies that will ensure continued food safety	Testing strategies for different age groups and settings to address gaps/resources to manage constraints	Improved utilization of resources to manage constraints Long term social, economic and environmental benefits for consumers and service providers Welfare to humans, animals and environment
Ethics of nudging consumers	Unclear theoretical justification, limited effectiveness of economic interventions, deviation from rational behavior			
Ethics of time resource for food consumption	Time (and other externally imposed) constraints interfere with ethical food choices			
<i>Well-being</i> Sustainability in foodservice operations	Need for a comprehensive approach that includes social, economic and environmental aspects Lack of transparency, weakly implemented regulations and poor knowledge among service providers and consumers			
Food safety and security				

(continued)

Table 1.
Summary of priority areas in food ethics and strategies for action

Table 1.

Review of priority areas in food ethics	Gaps in theory and practice	Strategies to bridge the gap	Implications for research	Impact on society
Overnutrition and obesity	Accessibility to processed and UPF in developing nations through marketing strategies that attract consumers, especially younger group (nudge)	Need for novel approaches to address rising prevalence of overnutrition	What is the role of foodservice providers to address the nudges for obesity UPF?	Prevent overweight and obesity

broadly, there is a need to better understand how the foodservice system addresses issues related to transparency, and comprehensive supply chain risk assessment and management. How can foodservice firms ensure seamless transparency from farm to fork? Furthermore, how can foodservice firms ensure sourcing food from global and local supply chains that meet ethical social and environmental sustainability requirements?

Relatedly, how can information methods such as labels be enhanced to ensure transparency of food content? While food labeling is an important part of ensuring consumers' informed decisions, we have reviewed literature suggesting that such labels are often ignored, or at best misunderstood by a large number of the consumers they were designed to assist. It is imperative that hospitality research provide evidence-based solutions to the problems inherent in current food labeling systems to ensure producers and consumers have the ability to make informed food decisions.

7.2 Justice

Justice encompasses a range of viewpoints related to equitable access to resources and the normative obligation to provide fair treatment to people. Our review demonstrates that several aspects of the foodservice system raise important issues with respect to justice. For example, although research demonstrates that nudges can lead to "appropriate" behaviors, such tactics may not be considered *just* when viewed in totality. Thus, there is a need to understand the ethical boundaries around the use of nudges in foodservice environments. Further research could consider how consumers react when they have been nudged and discover such tactics.

Resource constraints on food decision-making can also be more comprehensively explored in the literature, particularly addressing constraints of time and effort. While research has focused on the consequences of time constraints (need for convenience), the causes and source of time constraints remain less studied. As noted in our review, while certain constraints can be self-imposed, ethical and moral questions arise when the foodservice environment imposes those on the decision-maker. There needs to be a more comprehensive assessment of these factors, all with a focus on ensuring a "just" process and environment for food decisions.

Although efficiency has become a primary goal in the foodservice supply chain, the fact that foodservice meets a basic human need implicates questions of justice and ethics. For example, lean supply chains were significantly disrupted during the COVID-19 pandemic, when shelves went empty and suppliers and restaurants found it difficult to procure many necessary ingredients. Beyond pandemics and crises, the world faces constant shocks from natural and man-made disasters and there is a need for foodservice scholars to consider the ethical dimension of supply chain to ensure equitable access to food around the globe. Future research must ask what are the implications of financial risk mitigation strategies in the food system (such as capacity reduction, network consolidation, distribution consolidation, increased efficiency and inventory reduction) on consumer welfare?

While a significant portion of existing food and foodservice ethics research has focused on organizational and consumer perspectives, we have used this review to highlight the need to consider other stakeholders, perhaps most importantly foodservice workers. There is a glaring need for research that investigates the effects of the foodservice employment experience from an ethical perspective, and that asks questions such as how wages and benefits of foodservice workers can be brought to par with those engaged in other economic activities? In addition, given growing support for higher minimum wages in places such as the USA and general focus on workers' rights around the globe, there are significant

opportunities to investigate how fair treatment of employees may affect other stakeholders, such as consumers (e.g. service experiences, brand loyalty, etc.) or organizations (e.g. decreased employee withdrawal, customer loyalty, etc.). There also needs to be a better understanding of what employees in foodservice consider to be ethical practices, particularly organizational climate and ethics (Ali *et al.*, 2019); and where do they believe are the highest priorities for industry action and government/external interventions.

7.3 Well-being

This review argues that well-being, as comfort, health and/or happiness, deserves to be treated more holistically in the foodservice ethics literature. Specifically, while the comfort, health and happiness of customers is often considered in consumer-focused research in foodservice, there has not been as much consideration of the well-being of employees, the environment or customers from a health perspective. We also need to better understand economically viable approaches that foodservice establishments can take toward ensuring sustainable business practices, including the assurance of safe food, and employee and consumer well-being?

More specifically, there is a need to increase research focus on the ways in which the foodservice system may be promoting unhealthy behaviors such as overeating and leading consumers to associated harmful outcomes such as obesity. While the foodservice industry is not wholly to blame for the obesity crisis, given its importance in our daily eating habits, the industry is perfectly positioned to have a significant impact on public health. Therefore, there is a need to better elucidate the role of the foodservice system in recognizing and responding to obesity as a growing public health crisis. More broadly, we need to understand how the ways in which food is created, marketed and presented impacts public health. Research that focuses on how the food choice environment impacts consumer well-being, and that of the foodservice system as a whole, would provide important insights for both the industry and society as a whole.

7.4 Ethical relativism versus universalism

This general review also presented international perspectives of interpreting ethical challenges facing the foodservice system. Can there be a varied interpretations of these issues in other international contexts that are non-US and non-Europe centric, regions that are the source of majority of academic research? Cultural and social influences can present dilemmas in ethical deliberations and have been noted in the literature in context of food ethics (Al-Attar, 2017). The central interest in these discussions is whether there needs to be clearly defined “absolute” global guidelines for food ethics and foodservice ethics or whether these guidelines reflect the relative social and cultural realities (Tangwa, 2004). There are both theoretical and practical approaches that can be leveraged to remove such problems. A broad set of guidelines can be identified that provide baseline minimal standards to avoid controversial and prescriptive approaches (Tangwa, 2004). Then allowing choices and flexibility in establishing “localized” guidelines could increase the likelihood of universal acceptance of the essential idea of ensuring ethical standards in the foodservice system.

8. Conclusion

Foodservice represents a large and quickly growing share of the overall food system, yet there exists relatively little research into the foodservice system that is situated in the domain of ethics. We undertook this general, descriptive review with the aim of highlighting

a number of aspects of the foodservice system that we believe require increasing and sustained examination through research with an ethical and moral lens. To provide guidance to future researchers, we have provided an overarching theoretical framework for ethics in the foodservice industry based on the moral principles of autonomy, justice and well-being. While we recognize that the areas of this general review are not exhaustive, that was not our intent. Instead, we wished to highlight broad perspectives on this issue, and the relative lack of such research in the hospitality literature, and to make a case for an increased focus on foodservice ethics research and practice. We hope that this paper serves only as a starting point for research that can have both conceptual and practical impact, and which can help support the autonomy, justice and well-being of all stakeholders in the foodservice system.

References

- Al-Attar, M. (2017), "Food ethics: a critique of some Islamic perspectives on genetically modified food", *Zygon®*, Vol. 52 No. 1, pp. 53-75.
- Ali, F., Park, E., (O), Kwon, J. and Chae, B., (K). (2019), "30 years of contemporary hospitality management: uncovering the bibliometrics and topical trends", *International Journal of Contemporary Hospitality Management*, Vol. 31 No. 7.
- Alkon, A.H. and Agyeman, J. (2011), "Introduction: the food movement as polyculture", *Cultivating Food Justice: Race, Class, and Sustainability*, pp. 1-20.
- Anthony, R. (2018), "Food ethics as more than food security: Asia's critical role in discourses around animal welfare and environmental challenges", *Agricultural Ethics in East Asian Perspective*, Springer, Cham, pp. 95-131.
- Ares, G., Giménez, A., Vidal, L., Zhou, Y., Krystallis, A., Tsalis, G., Guerrero, L. (2016), "Do we all perceive food-related wellbeing in the same way? Results from an exploratory cross-cultural study", *Food Quality and Preference*, Vol. 52, pp. 62-73.
- Armstrong, R. and Kivirist, L. (2015), "Come and get it! What you need to know to serve food on your farm".
- Baker, P. and Friel, S. (2016), "Food systems transformations, ultra-processed food markets and the nutrition transition in Asia", *Globalization and Health*, Vol. 12 No. 1, pp. 1-15.
- Barnhill, A. and Doggett, T. (2018), "Food ethics I: food production and food justice", *Philosophy Compass*, Vol. 13 No. 3, p. e12479.
- Barton, A. and Grüne-Yanoff, T. (2015), "From libertarian paternalism to nudging – and beyond", *Review of Philosophy and Psychology*, Vol. 6 No. 3, pp. 341-359.
- Bean, N.H. and Griffin, P.M. (1990), "Foodborne disease outbreaks in the United States, 1973–1987: pathogens, vehicles, and trends", *Journal of Food Protection*, Vol. 53 No. 9, pp. 804-817.
- Belgian Development Agency (2013). "Resources", available at: www.enabel.be/content/resources
- Béné, C., Fanzo, J., Prager, S.D., Achicanoy, H.A., Mapes, B.R., Alvarez Toro, P. and Bonilla Cedrez, C. (2020), "Global drivers of food system (un) sustainability: a multi-country correlation analysis", *PLOS*.
- Bharucha, J. (2018), "Tackling the challenges of reducing and managing food waste in Mumbai restaurants", *British Food Journal*, Vol. 120 No. 3.
- Bitler, M. and Haider, S.J. (2011), "An economic view of food deserts in the United States", *Journal of Policy Analysis and Management*, Vol. 30 No. 1, pp. 153-176.
- Blumenthal-Barby, J.S. and Burroughs, H. (2012), "Seeking better health care outcomes: the ethics of using the 'nudge'", *The American Journal of Bioethics*, Vol. 12 No. 2, pp. 1-10.
- Bonotti, M. (2014), "Food labels, autonomy, and the right (not) to know", *Kennedy Institute of Ethics Journal*, Vol. 24 No. 4, pp. 301-321.

- Cadario, R. and Chandon, P. (2020), "Which healthy eating nudges work best? A meta-analysis of field experiments", *Marketing Science*, Vol. 39 No. 3, pp. 465-486.
- Cafer, A.M. and Kaiser, M.L. (2016), "An analysis of differences in predictors of food affordability between rural and urban counties", *Journal of Poverty*, Vol. 20 No. 1, pp. 34-55.
- Carino, S., Porter, J., Malekpour, S. and Collins, J. (2020), "Environmental sustainability of hospital foodservices across the food supply chain: a systematic review", *Journal of the Academy of Nutrition and Dietetics*, Vol. 120 No. 5.
- Centers for Disease Control (CDC) (2014), "Surveillance for foodborne disease outbreaks, United States, 2014, annual report", available at: www.cdc.gov/foodsafety/pdfs/foodborne-outbreaks-annual-report-2014-508.pdf
- Centers for Disease Control (CDC) (2018), "Burden of foodborne illness: overview", | Estimates of Foodborne Illness | CDC, available at: www.cdc.gov/foodborneburden/estimates-overview.html
- Chiles, R.M., Glenna, L., Sharma, A., Catchmark, J., Azzara, C.D. and Maretzki, A. (2018), "Agri-food firms, universities, and corporate social responsibility: what's in the public interest?", *Renewable Agriculture and Food Systems*, pp. 1-11.
- Chou, C.J., Chen, K.S. and Wang, Y.Y. (2012), "Green practices in the restaurant industry from an innovation adoption perspective: evidence from Taiwan", *International Journal of Hospitality Management*, Vol. 31 No. 3, pp. 703-711.
- Claasen, N. Van Der Hoeven, M. and Covic, N. (2016), "Food environments, health and nutrition in South Africa mapping the research and policy terrain".
- Coff, C. and Kemp, P. (2014), "Food ethics and policies", *Encyclopedia of Food and Agricultural Ethics*, Springer Science+ Business Media, pp. 880-887.
- Coff, C., Korthals, M. and Barling, D. (2008), "Ethical traceability and informed food choice", *Ethical Traceability and Communicating Food*, Springer, Dordrecht, pp. 1-18.
- Cohen, J., Jahn, J., Richardson, S., Parker, E. and Rimm, E. (2015), "Impact of school lunch period length on meal consumption", *The FASEB Journal*, Vol. 29 No. S1, pp. 273-274.
- Conklin, M.T. and Lambert, L.G. (2001), "Eating at school: a summary of NFSMI research on time required by students to eat lunch", *National Food Service Management Institute*, University: University of MS, Retrieved December, 12, p. 2005.
- d'Amour, C.B., Pandey, B., Reba, M., Ahmad, S., Creutzig, F. and Seto, K.C. (2020), "Urbanization, processed foods, and eating out in India", *Global Food Security*, Vol. 25, p. 100361.
- de Andrade, M.L., Stedefeldt, E., Zanin, L.M., Zanetta, L.D. and da Cunha, D.T. (2021), "Unveiling the food safety climate's paths to adequate food handling in the hospitality industry in Brazil", *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 3.
- De Marchi, E., Caputo, V., Nayga, R.M., Jr. and Banterle, A. (2016), "Time preferences and food choices: evidence from a choice experiment", *Food Policy*, Vol. 62, pp. 99-109.
- de Silva-Sanigorski, A. Breheny, T. Jones, L. Lacy, K. Kremer, P. Carpenter, L. . . . Swinburn, B. (2011), "Government food service policies and guidelines do not create healthy school".
- Dodge, R., Daly, A.P., Huyton, J. and Sanders, L.D. (2012), "The challenge of defining wellbeing", *International Journal of Wellbeing*, Vol. 2 No. 3.
- Donald, B. (2013), "Food retail and access after the crash: rethinking the food desert problem", *Journal of Economic Geography*, Vol. 13 No. 2, pp. 231-237.
- Dougherty, D. and Heller, T. (1994), "The illegitimacy of successful product innovation in established firms", *Organization Science*, Vol. 5 No. 2, pp. 200-218.
- Engelen, B. and Nys, T. (2020), "Nudging and autonomy", *Review of Philosophy and Psychology*, Vol. 11 No. 1.
- Fanzo, J. (2017), "From big to small: the significance of smallholder farms in the global food system", *The Lancet Planetary Health*, Vol. 1 No. 1, pp. e15-e16.

- Filimonau, V., Lemmer, C., Marshall, D. and Bejjani, G. (2017), "Nudging as an architect of more responsible consumer choice in food service provision: the role of restaurant menu design", *Journal of Cleaner Production*, Vol. 144, pp. 161-170.
- Food and Agriculture Organization (FAO) (2001), *Ethical Issues in Food and Agriculture. 2001*, Rome: FAO.
- Food and Drug Administration (FDA) (2021), "Menu labeling rule", Retrieved on April 23rd 2021, available at: www.fda.gov/media/116000/download
- Food and Drug Administration (FDA) (2010), "FDA trend analysis report on the occurrence of foodborne illness risk factors in selected institutional foodservice, restaurant, and retail food store facility types (1998-2008)", available at: www.fda.gov/downloads/Food/GuidanceRegulation/RetailFoodProtection/FoodborneIllnessRiskFactorReduction/UCM369245.pdf
- Friedmann, H. (2007), "Scaling up: bringing public institutions and food service corporations into the project for a local, sustainable food system in Ontario", *Agriculture and Human Values*, Vol. 24 No. 3, pp. 389-398.
- FSSAI (2017), "Eat right India", available at: <https://fssai.gov.in/cms/eat-right-india.php>, (Accessed February 2020).
- Gallear, D., Ghobadian, A. and He, Q. (2015), "The mediating effect of environmental and ethical behaviour on supply chain partnership decisions and management appreciation of supplier partnership risks", *International Journal of Production Research*, Vol. 53 No. 21, pp. 6455-6472.
- Gibson, R.B. (2006), "Beyond the pillars: sustainability assessment as a framework for effective integration of social, economic and ecological considerations in significant decision-making", *Journal of Environmental Assessment Policy and Management*, Vol. 08 No. 03, pp. 259-280.
- Grüne-Yanoff, T. and Hertwig, R. (2016), "Nudge versus boost: how coherent are policy and theory?", *Minds and Machines*, Vol. 26 Nos 1/2, pp. 149-183.
- Gulati, S., Misra, A., Colles, S.L., Kondal, D., Gupta, N., Goel, K., Bansal, S., Mishra, M., Madkaikar, V. and Bhardwaj, S. (2013), "Dietary intakes and familial correlates of overweight/obesity: a four-cities study in India", *Annals of Nutrition and Metabolism*, Vol. 62 No. 4, pp. 279-290.
- Gupta, N., Goel, K., Shah, P. and Misra, A. (2012), "Childhood obesity in developing countries: epidemiology, determinants, and prevention", *Endocrine Reviews*, Vol. 33 No. 1, pp. 48-70.
- Haas, B., Fleming, A., Haward, M. and McGee, J. (2019), "Big fishing: the role of the large-scale commercial fishing industry in achieving sustainable development goal 14", *Reviews in Fish Biology and Fisheries*, Vol. 29 No. 1, pp. 161-175.
- Halloran, A., Clement, J., Kornum, N., Bucatariu, C. and Magid, J. (2014), "Addressing food waste reduction in Denmark", *Food Policy*, Vol. 49, pp. 294-301, doi: [10.1016/j.foodpol.2014.09.005](https://doi.org/10.1016/j.foodpol.2014.09.005).
- Helne, T. and Hirvilammi, T. (2015), "Wellbeing and sustainability: a relational approach", *Sustainable Development*, Vol. 23 No. 3, pp. 167-175.
- Hinrichs, C.C. (2003), "The practice and politics of food system localization", *Journal of Rural Studies*, Vol. 19 No. 1, pp. 33-45.
- Ho, W., Zheng, T., Yildiz, H. and Talluri, S. (2015), "Supply chain risk management: a literature review", *International Journal of Production Research*, Vol. 53 No. 16, pp. 5031-5069.
- Hunter, L.M. and Rinner, L. (2004), "The association between environmental perspective and knowledge and concern with species diversity", *Society and Natural Resources*, Vol. 17 No. 6, pp. 517-532.
- Ikerd, J. (2020), "The economic pamphleteer: local food: another food fad or food of the future?", *Journal of Agriculture, Food Systems, and Community Development*, Vol. 9 No. 3, pp. 1-4.
- India Fact sheet (2016), "International institute for population studies.NFHS-4 (national family health survey-4)", available at: http://rchiips.org/nfhs/factsheet_nfhs-4.shtml
- Jabs, J. and Devine, C.M. (2006), "Time scarcity and food choices: an overview", *Appetite*, Vol. 47 No. 2, pp. 196-204.

- Jacobs, S.A., de Beer, H. and Larney, M. (2011), "Adult consumers understanding and use of information on food labels: a study among consumers living in Potchefstroom and Klerksdorp regions", *South Africa. Public Health Nutrition*, Vol. 4 No. 3, pp. 510-522.
- Johnson, E.J., Shu, S.B., Dellaert, B.G., Fox, C., Goldstein, D.G., Häubl, G., Larrick, R.P., Payne, J.W., Peters, E., Schkade, D. and Wansink, B. (2012), "Beyond nudges: tools of a choice architecture", *Marketing Letters*, Vol. 23 No. 2, pp. 487-504.
- Kalt, G., Lauk, C., Mayer, A., Theurl, M.C., Kaltenegger, K., Winiwarter, W., . . . Haberl, H. (2020), "Greenhouse gas implications of mobilizing agricultural biomass for energy: a reassessment of global potentials in 2050 under different food-system pathways", *Environmental Research Letters*, Vol. 15 No. 3, p. 034066.
- Kaplan, David M. (Ed.). (2012), *The Philosophy of Food*, Vol. 39, Univ of CA Press.
- Keshari, P. and Mishra, C.P. (2016), "Growing menace of fast food consumption in India: time to act", *International Journal of Community Medicine and Public Health*, Vol. 3 No. 6, pp. 1355-1362.
- Kibret, M. and Abera, B. (2012), "The sanitary conditions of food service establishments and food safety knowledge and practices of food handlers in Bahir Dar town", *Ethiopian Journal of Health Sciences*, Vol. 22 No. 1, pp. 27-35.
- Kim, M.S., Thapa, B. and Holland, S. (2018), "Drivers of perceived market and eco-performance in the foodservice industry", *International Journal of Contemporary Hospitality Management*, Vol. 30 No. 2, pp. 720-739.
- Kjærnes, U. (2012), "Ethics and action: a relational perspective on consumer choice in the European politics of food", *Journal of Agricultural and Environmental Ethics*, Vol. 25 No. 2, pp. 145-162.
- Koen, N., Blaauw, R. and Wentzel-Viljoen, E. (2016), "Food and nutrition labelling: the past, present and the way forward", *South African Journal of Clinical Nutrition*, Vol. 29 No. 1, pp. 13-21.
- Kubde, S.R., Pattankar, J. and Kokiwar, P.R. (2017), "Knowledge and food hygiene practices among food handlers in food establishments", *International Journal of Community Medicine and Public Health*, Vol. 3 No. 1, pp. 251-256.
- Kwon, J., Roberts, K.R., Sauer, K., Cole, K.B. and Shanklin, C.W. (2014), "Food safety risks in restaurants and school foodservice establishments: health inspection reports", *Food Protection Trends*, Vol. 34 No. 1, pp. 25-35.
- Kwon, K.I., Yoon, S.W., Kim, S.J., Kang, H., Kim, H.N., Kim, J.Y., Kim, S.Y., Kim, K., Lee, J.H., Jung, S.M. and Ock, S.W. (2010), "A survey on customers' perceptions of nutrition labeling for processed food and restaurant meal", *The Korean Journal of Nutrition*, Vol. 43 No. 2, pp. 181-188.
- Lee, K. and Caine-Bish, N. (2021), "Understanding restaurant healthfulness in food deserts", *Journal of Nutrition Education and Behavior*, Vol. 53 No. 6.
- Lee, M.B. and Greig, J.D. (2010), "A review of gastrointestinal outbreaks in schools: effective infection control interventions", *Journal of School Health*, Vol. 80 No. 12, pp. 588-598.
- Lin, C.J., Zhang, Y., Carlton, E.D. and Lo, S.C. (2014), *FDA Health and Diet Survey. Center for Food Safety and Applied Nutrition*, United States Food and Drug Administration.
- Lo, J. and Jacobson, A. (2011), "Human rights from field to fork: improving labor conditions for food-sector workers by organizing across boundaries", *Race/Ethnicity: Multidisciplinary Global Contexts*, Vol. 5 No. 1, pp. 61-82.
- Love, D.C., Turvey, C., Harding, J., Young, R., Ramsing, R., F., Thusty, M., Bloem, M. (2021), "Nutrition and origin of US chain restaurant seafood", *The American Journal of Clinical Nutrition*, Vol. 113 No. 6.
- Lu, L. and Chi, CG-Q. (2018), "An examination of the perceived value of organic dining", *International Journal of Contemporary Hospitality Management*, Vol. 30 No. 8, pp. 2826-2844.
- Lundeberg, P.J., Graham, D.J. and Mohr, G.S. (2018), "Comparison of two front-of-package nutrition labeling schemes, and their explanation, on consumers' perception of product healthfulness and food choice", *Appetite*, Vol. 125, pp. 548-556.

- McEwan, C., Hughes, A. and Bek, D. (2015), "Theorising middle class consumption from the global South: a study of everyday ethics in South Africa's Western Cape", *Geoforum*, Vol. 67, pp. 233-243.
- Maloni, M.J. and Brown, M.E. (2006), "Corporate social responsibility in the supply chain: an application in the food industry", *Journal of Business Ethics*, Vol. 68 No. 1, pp. 35-52.
- Manning, L., Baines, R.N. and Chadd, S.A.T. (2006), "Ethical modelling of the food supply chain", *British Food Journal*.
- Mepham, B. (2000), "A framework for the ethical analysis of novel foods: the ethical matrix", *Journal of Agricultural and Environmental Ethics*, Vol. 12 No. 2, pp. 165-176.
- Meuris, J. and Leana, C.R. (2015), "The high cost of low wages: economic scarcity effects in organizations", *Research in Organizational Behavior*, Vol. 35, pp. 143-158.
- Monteiro, C.A., Cannon, G., Lawrence, M., Costa Louzada, M.D. and Pereira Machado, P. (2019), *Ultra-Processed Foods, Diet Quality, and Health Using the NOVA Classification System*, Rome, FAO.
- National Consumer Credit Protection (NCCP) (2018), United States, Demographics of Low-Income Children, available at: www.nccp.org/profiles/US_profile_6.html
- National Department of Health (2010), *Policy for Food Service Management in Public Health Establishments*, Department of Health, Republic of South Africa.
- National Department of Health (2016), *National Guide for Healthy Meal Provisioning in the Workplace*, Department of Health, Republic of South Africa.
- National Restaurant Association (NRA) (2019), "2019 restaurant industry fact book", Retrieved on September 16th, 2019, 15(4), e0231071, available at: https://restaurant.org/Downloads/PDFs/Research/SOL/restaurant_industry_fact_sheet_2019.pdf.
- Patel, O., Shahulhameed, S., Shivashankar, R., Tayyab, M., Rahman, A., Prabhakaran, D., Tandon, N. and Jaacks, L.M. (2018), "Association between full service and fast food restaurant density, dietary intake and overweight/obesity among adults in Delhi, India", *BMC Public Health*, Vol. 18 No. 1, pp. 1-11.
- Peck, H. (2006), "Resilience in the food chain: a study of business continuity management in the food and drink industry", *Final Report to the Dep. for Environment, Food and Rural Affairs, Dep. of Defence Management and Security Analysis*, Cranfield University, Shrivenham, pp. 1-193.
- Peregrin, T. (2011), "Sustainability in foodservice operations: an update", *Journal of the American Dietetic Association*, Vol. 111 No. 9, p. 1288.
- Pingali, P., Aiyar, A., Abraham, M. and Rahman, A. (2019), "The nutrition transformation: from undernutrition to obesity", *Transforming Food Systems for a Rising India*, pp. 93-133.
- Poobalan, A. and Aucott, L. (2016), "Obesity among young adults in developing countries: a systematic overview", *Current Obesity Reports*, Vol. 5 No. 1, pp. 2-13.
- Popkin, B.M., Adair, L.S. and Ng, S.W. (2012), "Global nutrition transition and the pandemic of obesity in developing countries", *Nutrition Reviews*, Vol. 70 No. 1, pp. 3-21.
- Pula, K., Parks, C.D. and Ross, C.F. (2014), "Regulatory focus and food choice motives. Prevention orientation associated with mood, convenience, and familiarity", *Appetite*, Vol. 78, pp. 15-22.
- Reisch, L., Eberle, U. and Lorek, S. (2013), "Sustainable food consumption: an overview of contemporary issues and policies", *Sustainability: Science, Practice and Policy*, Vol. 9 No. 2, pp. 7-25.
- Research and Markets (2019), "Global foodservice market 2019-2023 – growing mergers and acquisitions (M&A)", Retrieved on September 16th, 2019, available at: www.globenewswire.com/news-release/2019/07/16/1883221/0/en/Global-Foodservice-Market-2019-2023-Growing-Mergers-and-Acquisitions-M-A.html
- Roberts, K.R., Barrett, B.B., Howells, A.D., Shanklin, C.W., Pilling, V.K. and Brannon, L.A. (2008), "Food safety training and foodservice employees' knowledge and behavior", *Food Protection Trends*, Vol. 28 No. 4, pp. 252-260.
- Roberts, K., Kwon, J., Shanklin, C., Liu, P. and Yen, W.S. (2011), "Food safety practices lacking in independent ethnic restaurants", *Journal of Culinary Science and Technology*, Vol. 9 No. 1, pp. 1-16.

- Roberts, K.R., Sauer, K.L., Sneed, J., Kwon, J., Olds, D., Cole, K. and Shanklin, C.W. (2014), "Analysis of school food safety programs based on HACCP principles", *The Journal of Child Nutrition and Management*, Vol. 38 No. 1.
- Ross, S.A. (1973), "The economic theory of agency: the principal's problem", *The American Economic Review*, Vol. 63 No. 2, pp. 134-139.
- Saksena, M.J., Okrent, A.M., Anekwe, T.D., Cho, C., Dicken, C., Effland, A., . . . and J., Y. (2018), "America's eating habits: food away from home (no. 281119). United States department of agriculture", *Economic Research Service*.
- Satija, A., Hu, F.B., Bowen, L., Bharathi, A.V., Vaz, M., Prabhakaran, D., Reddy, K.S., Ben-Shlomo, Y., Smith, G.D., Kinra, S. and Ebrahim, S. (2015), "Dietary patterns in India and their association with obesity and Central obesity", *Public Health Nutrition*, Vol. 18 No. 16, pp. 3031-3041.
- Saulais, L. (2015), *Responsibility, Strategies and Perspectives*, The Routledge Handbook of Sustainable Food and Gastronomy, p. 253.
- Schulte-Mecklenbeck, M., Sohn, M., De Bellis, E., Martin, N. and Hertwig, R. (2013), "A lack of appetite for information and computation. Simple heuristics in food choice", *Appetite*, Vol. 71, pp. 242-251.
- Sharma, A. (2020), "The ACE trade-off model: a cost – Benefit perspective to understanding the process of everyday food choice transactions", *Financial Decision-Making in the Foodservice Industry: Economic Costs and Benefits*, Vol. 1.
- Sharma, A., Moon, J. and Bailey-Davis, L. (2018), "Loss aversion of time: Serving school lunches faster without impacting meal experience", *Ecology of Food and Nutrition*, Vol. 57 No. 6, pp. 456-472.
- Sharma, A., Moon, J. and Strohbahn, C. (2014), "Restaurant's decision to purchase local foods: influence of value chain activities", *International Journal of Hospitality Management*, Vol. 39, pp. 130-143.
- Sharma, A., Moon, J., Bailey-Davis, L. and Conklin, M. (2017), "Food choices and service evaluation under time constraints: the school lunch environment", *International Journal of Contemporary Hospitality Management*, Vol. 29 No. 12, pp. 3191-3210.
- Sonenshein, S. (2016), "How corporations overcome issue illegitimacy and issue equivocality to address social welfare: the role of the social change agent", *Academy of Management Review*, pp. 349-366, Vol. 41 No. 2.
- Stevenson, G.W. and Pirog, R. (2008), "Values-based supply chains: strategies for agrifood enterprises of the Middle", *Food and the Mid-Level Farm: Renewing an Agriculture of the Middle*, pp. 119-143.
- Sumner, J. (2013), "Food literacy and adult education: learning to read the world by eating", *The Canadian Journal for the Study of Adult Education (Online)*, Vol. 25 No. 2, p. 79.
- Swartz, H., Santo, R. and Neff, R.A. (2018), "Promoting sustainable food system change amidst inequity: a case study of Baltimore, MD", *Advances in Food Security and Sustainability*, Vol. 3, pp. 135-176.
- Szaszi, B., Palinkas, A., Palfi, B., Szollosi, A. and Aczel, B. (2018), "A systematic scoping review of the choice architecture movement: toward understanding when and why nudges work", *Journal of Behavioral Decision Making*, Vol. 31 No. 3, pp. 355-366.
- Tangwa, G.B. (2004), "Between universalism and relativism: a conceptual exploration of problems in formulating and applying international biomedical ethical guidelines", *Journal of Medical Ethics*, Vol. 30 No. 1, pp. 63-67.
- Thaler, R.H. and Sunstein, C.R. (2009), *Nudge: Improving Decisions about Health, Wealth, and Happiness*, Penguin.
- Thompson, P.B. (2015), *From Field to Fork: Food Ethics for Everyone*, Oxford University Press, USA.
- U.S. Census Bureau (2018), "The U.S. Census Bureau's current population survey", available at: www.census.gov/programs-surveys/cps.html
- Vallianatos, M., Azuma, A.M., Gilliland, S. and Gottlieb, R. (2010), "Peer reviewed: food access", *Availability, and Affordability in 3 Los Angeles Communities, Project CAFE*, Preventing chronic disease, Vol. 7 No. 2, pp. 2004-2006.

- Van der Merwe, M. and Venter, K. (2010), "A consumer perspective on food labelling: ethical or not?", *Koers – Bulletin for Christian Scholarship*, Vol. 75 No. 2, pp. 405-428.
- VanEpps, E.M., Roberto, C.A., Park, S., Economos, C.D. and Bleich, S.N. (2016), "Restaurant menu labeling policy: review of evidence and controversies", *Current Obesity Reports*, Vol. 5 No. 1, pp. 72-80.
- Videon, T.M. and Manning, C.K. (2003), "Influences on adolescent eating patterns: the importance of family meals", *Journal of Adolescent Health*, Vol. 32 No. 5, pp. 365-373.
- Vorster, H.H., Badham, J.B. and Venter, C.S. (2013), "An introduction to the revised food-based dietary guidelines for South Africa", *South African Journal of Clinical Nutrition*, Vol. 26, pp. S5-S12.
- Wilson, N.L., Just, D.R., Swigert, J. and Wansink, B. (2017), "Food pantry selection solutions: a randomized controlled trial in client-choice food pantries to nudge clients to targeted foods", *Journal of Public Health (Oxford, England)*, Vol. 39 No. 2, pp. 366-372.
- Wognum, P.N., Bremmers, H., Trienekens, J.H., van der Vorst, J.G. and Bloemhof, J.M. (2011), "Systems for sustainability and transparency of food supply chains—current status and challenges", *Advanced Engineering Informatics*, Vol. 25 No. 1, pp. 65-76.
- World Health Organization (WHO) (2020), "Obesity and overweight. Key facts", available at: www.who.int/news-room/fact-sheets/detail/obesity-and-overweight (accessed March 2021).
- Yadav, H., Mahna, R. and Rekhi, T.K. (2015), "A review on food safety in India with focus on food catering organizations in India", *International Journal for Innovative Research in Science and Technology*, Vol. 1 No. 10, pp. 214-219.
- Zlatevska, N., Neumann, N. and Dubelaar, C. (2018), "Mandatory calorie disclosure: a comprehensive analysis of its effect on consumers and retailers", *Journal of Retailing*, Vol. 94 No. 1, pp. 89-101.
- Zorzini, M., Hendry, L.C., Hug, F.A. and Stevenson, M. (2015), "Socially responsible sourcing: reviewing the literature and its use of theory", *International Journal of Operations and Production Management*, Vol. 35 No. 1, pp. 60-109.
- Zwart, H. (2000), "A short history of food ethics", *Journal of Agricultural and Environmental Ethics*, Vol. 12 No. 2, pp. 113-126.

Further reading

- Kalfagianni, A. and Skordili, S. (Eds). (2018), *Localizing Global Food: Short Food Supply Chains as Responses to Agri-Food System Challenges*, Routledge.
- World Health Organization (WHO) (2015), "Obesity; situation and trends. Global health observatory data. [ONLINE]", available at: www.who.int/gho/ncd/risk_factors/obesity_text/en/ (accessed September 2016).

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