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From transactions to transformations: exploring transformative food retailing

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ABSTRACT

Food retailing is undergoing a major restructuring process that is altering its boundaries, service provision and operations. Digitalisation and other technological advances are shifting the focus from products to services, from offline to online and from physical to virtual. Simultaneously, initiatives such as the United Nations Sustainable Development Goals are exerting pressure on food retailers to address contemporary global challenges, such as promoting healthy and sustainable consumption and production. However, these areas not only challenge food retailers but also provide opportunities for facilitating favourable dietary changes that benefit consumers, companies and society at large. This study introduces transformative food retailing as a construct that shifts attention to the reconfigured role of food retailing and its potential. We identify the shaping forces and characteristics of transformative food retailing and discuss the implications for consumers, food retailers and society at large. This paper is among the first to define and conceptualise food retail as transformative and, as a result, sets a platform for future scholarly research and practice to uncover the full potential of food retailing in serving both consumers and society.

Introduction

Food retailing is undergoing a major evolution that is altering its boundaries, service provision and operations, resulting in a permanent restructuring of retail services (e.g. Helm, Kim, and Van Riper 2020; Kumar and Venkatesan 2021) that is often referred to as 'retail transformation' (Hagberg, Sundström, and Nicklas 2016) or 'retail apocalypse' (e.g. Childs et al. 2020; Mende and Noble 2019). Technological developments such as digital payment systems, mobile shopping, virtual mirrors, self-checkouts, radio-frequency identification (RFID), artificial intelligence and virtual reality (Roggeveen and Sethuraman 2020; Nilsson 2022), combined with big data analytics (Bradlow et al. 2017; Wedel and Kannan 2016; Aversa, Hernandez, and Doherty 2021), are introducing new ways of

creating value for both customers and retailers (Hänninen, Kwan, and Mitronen 2021; Bansal et al. 2022). In addition, the increasing focus on social and environmental sustainability is influencing retailers to reconfigure their roles and responsibilities. For example, global problems related to health, equality and environmentally sustainable consumption (the United Nations Sustainable Development Goals [SDGs], United Nations) not only challenge retailers but also provide them with new avenues for value creation – both on individual and societal levels.

What we eat represents a significant share of our environmental footprint and is deeply connected to our health (Murray et al. 2020). Therefore, food retailers are in a unique position to facilitate favourable dietary changes that are better aligned with the challenges outlined above. This is well in line with transformative service research (TSR), which has been seen as a response towards reconsidering researchers' roles in improving the wellbeing of individuals, families, communities, society and the ecosystem at large (Anderson et al. 2013). These beneficial outcomes can be physical, mental, social or financial in nature (Anderson and Ostrom 2015) and are transformative when actors 'become conscious of their roles in reproducing structures and elect to make new, imaginative choices to challenge dominant patterns' (Blocker and Barrios 2015, p. 268). More recently, Kumar (2018) emphasised the potential of transformative marketing (TM) that combines academic research, marketplace actions and societal developments as fundamental constituents shaping marketing thought and practice.

This study argues that the combination of recent technological, social and environmental developments described above can reconfigure food retailing to become transformative in nature. In addition to the traditional role of the retailer as the remover of the separation between the customer and producer (Babin, Feng, and Borges 2021), food retailers are uniquely positioned to support favourable dietary changes and respond to the recent calls for more sustainable retailing presented by markets, society and scholars alike (see Vadakkepatt et al. 2021). Similarly, Esbjerg, Laursen, and Schulze (2022) have recently suggested that retailers today are becoming more proactive in facilitating consumer demand in certain way as they aim at being good corporate citizens. Although research on transformative services has progressed significantly since it was initially proposed (for reviews, see Hawley, Raciti, and Lawley 2017; Rahman 2021), retailing in general and food retailing in particular, which are core service delivery sectors, have remained largely unexplored. Food retailing – with its potential for increasing (or decreasing) wellbeing both at the individual and societal level (e.g. see Shaw et al. 2020; da Costa Peres et al. 2020)—has been largely neglected. With only a few exceptions (see Troebs, Wagner, and Heidemann 2018; Saarijärvi et al. 2016, 2019), there is a lack of understanding regarding the potential of food retail as a transformative service industry and the implications it may hold for scholars and practitioners. In summary, the potential of the food retail industry is far-reaching, and more research is needed to fully utilise it.

Consequently, the purpose of this paper is to explore and analyse transformative food retailing. The study is conceptual in nature meaning that focus is placed on providing multi-level insights, broadening the scope of thinking, and seeing the unseen (Gilson and Goldberg 2015; MacInnis 2011) with the aim of uncovering the why, what, and how of transformative food retailing. Conceptualization refers here to 'seeing' or 'understanding'; it aims at capturing the mental representation of an interesting idea (MacInnis 2011). Conceptual thinking then refers to 'the process of understanding a situation or problem

Table 1. Literature streams contributing to transformative food retailing.

Literature streams	Description	Key references
Reverse use of customer data	Shifts attention to collecting, analysing and using customer loyalty card data for facilitating consumers' value-creating processes	Lim et al. (2018, 2019); Saarijärvi et al. (2016); Saarijärvi *et al.* (2014)
Gamification	Emphasises the importance of game elements in motivating customers and supporting favourable behavioural changes	Koivisto and Hamari (2019); Mulcahy, Zainuddin, and Russell-Bennett (2020)
Customer experience	Focuses on understanding how reverse use of customer data and gamification can enrich customer experiences	Becker and Jaakkola (2020); Lemon and Verhoef (2016)

abstractly by identifying patterns or connections and key underlying properties' (MacInnis 2011, 140). In the context of our study, conceptual thinking is thus directed at advancing the idea of transformative food retailing and establishing a novel framework to uncover its respective shaping forces and characteristics. This process consists of a combination of inductive and deductive reasoning as well as divergent thinking skills, and may result in visual representation of the idea, process model, or other depictions (MacInnis 2011).

To achieve this, we first briefly discuss three contemporary literature streams (reverse use of customer data, gamification, and customer experience) that uncover the potential of transformative food retailing. Herein, the role of theory is not to act as a straitjacket (Gummesson 2002) nor explicit or complete list of all literature streams that could be linked to the construct. Instead, prior literature gives guidance, it offers a kaleidoscope of views that inspire our conceptual development and enable the envisioning of transformative food retailing. After the theoretical background we introduce our tentative framework by discussing the forces, characteristics and implications of transformative food retailing. The aim of the framework is not to delineate the focus on specific measurable constructs, their interlinkages and potential outcomes but to explicate, i.e. articulate, explain and draw out ideas (MacInnis 2011), and thus identify new directions for both research and practice. We conclude the study with a discussion and our conclusions, including suggestions for future research.

Theoretical background

Given the conceptual and theory-developing role of this study, the TSR literature provides guidance and helps in approaching the research phenomenon of transformative food retailing. However, for the purposes of our study, we highlight three additional literature streams that help in understanding the transformative potential of food retailing in particular (Table 1): (1) reverse use of customer data, (2) gamification and (3) customer experience. Referring to MacInnis (2011), these literature streams altogether help us envision and represent better the potential of transformative food retailing. They are briefly discussed in the following sections.

Reverse use of customer data

Food retailers' data collection today is focused on customers, products, time, location and channel (Bradlow et al. 2017). Data have become 'the new oil' of the digital economy (Krafft et al. 2021; Erevelles, Fukawa, and Swayne 2016; Wedel and Kannan 2016). As noted

by Krafft et al. (2021, p. 133), 'superior data may be as important as superior products, services, resources, and skills to outperform competitors'. Accordingly, since consumers nowadays are more aware of companies' data collection and usage policies, they are also likely to anticipate enhanced service delivery in return (Leppäniemi, Karjaluoto, and Saarijärvi 2017; Pallant et al. 2022). Herein, the reverse use of customer data, that is, converting customer data into information that can also be used in customers' own value-creating processes (Saarijärvi et al. 2014; Lim et al. 2018), represents a set of company-led activities that can meet these expectations.

In the context of food retailing, the reverse use of customer data can enable various desirable behavioural changes that contribute to enhanced wellbeing. For example, food retailers can use customer loyalty card data to support customers in achieving healthier or more sustainable diets, for example, via mobile applications or other digital services (see, e.g. Saarijärvi, Mitronen, and Yrjölä 2014). Food retailers' customer loyalty card data are especially useful for these types of transformative purposes for three reasons. First, it is automatically generated and is objective and personalised; that is, customers themselves make their data more personal and potentially more impactful compared with general information – for example, the importance of eating fruits and vegetables. Second, as data is collected over time, it is longitudinal and allows for tracking changes in food purchase patterns on an individual level. This type of information helps both food retailers and customers monitor the extent to which their behaviours are changing. Third, food retailers can complement their existing product data with data related to, for example, nutrition or carbon dioxide levels (Meinilä et al. 2022; Erkkola et al. 2022; see also Saarijärvi et al. 2016). The addition of such 'new columns' in existing data (Bradlow et al. 2017) extends the scope of data collection and benefits retailers in terms of integrating and converting existing data into relevant information for customers. Similarly, Lim et al. (2018) proposed a nine-factor framework for data-based value creation in information-intensive services. Their framework includes, for example, data sources (e.g. vehicles, customers and city infrastructure), data collection (e.g. sensors and recording logs of IT systems), actual data (e.g. health and behavioural records) and information (e.g. descriptive, predictive or prescriptive information); these aspects are aimed at creating value not only for the organisation but for consumers also, and provide an interesting perspective to contemporary information standards used by retailers (see Hänninen, Luoma, and Mitronen 2021). This framework is also easily applicable in the food retail context: the data source refers to consumers, data collection to customer loyalty cards, actual data to food purchases and information to different descriptive, predictive and prescriptive information related, for instance, to healthfulness or carbon emission levels of the purchased food items.

Put together, such information resulting from the reverse use of customer data can evolve into new knowledge with transformative potential and can guide individuals in making evidence-informed choices that are better aligned with their personal objectives and wellbeing, and possibly, with societal objectives. In practice, this information can be given to customers upon their own request or as different types of nudges in the point-of-purchase situation. Nudging refers to shaping consumers' choice architecture in a way that alters their behaviour in a predictable way, without forbidding any options (Thaler and Sunstein 2008). Nudging relies on consumers' automatic heuristics for their own benefit, for example, by guiding them towards a healthier

diet (Broers et al. 2017). The potential of various types of nudges have been explored, especially in nutrition and health research (see, e.g. Arno and Thomas 2016; Bucher et al. 2016; Broers et al. 2017; Guthrie, Mancino, and Lin 2015; see also Sihvonen and Luomala 2017). A recent study, for instance, found that a visual nudge of a healthier option presented to the consumer when they were scanning an unhealthy option using a self-scanner resulted in more purchases of healthier products (van der Laan and Orcholska 2022). The nudge served as a cue-to-action or a reminder of the consumer's goal at the right moment, making them aware of their behaviour and giving them contextualised feedback. Reverse use of customer data can be a novel source for new types of nudges: when the data is about the consumer, the designed nudge can have even more power in influencing behaviour.

Gamification

Gamification refers to the application of different types of game elements, such as points, leaderboards and badges, in non-game contexts, for example, to motivate and guide consumption behaviour (Koivisto and Hamari 2019; Mulcahy, Zainuddin, and Russell-Bennett 2020). These elements can increase consumers' motivation to engage in a specific consumption activity and thus guide their behaviour in preferable directions (Huotari and Hamari 2012). Research interest in the transformative potential of gamification services has grown recently (Mulcahy, Zainuddin, and Russell-Bennett 2020), as they may provide a more enjoyable experience and increase wellbeing in the context of healthcare, education or sustainable consumption (Koivisto and Hamari 2019). In the context of food retailing, in contrast with the most common public policy approach to influencing consumer behaviour by providing more information, a combination of game elements could instead better motivate consumers towards behavioural changes. To realise the transformative potential of food retailing, gamification provides a new set of tools to both motivate and engage consumers towards behavioural change. For example, using gamified elements in the digital grocery shopping context has been one of the key competitive advantages of the Chinese company Pin Duo Duo. This company has built game elements into its digital application, which is also significantly focused on the social experience of team shopping and gaining rewards together with friends. For instance, in-app games such as DuoDuoOrchard have enabled customers to grow their own virtual fruit tree to eventually yield real fruit shipped to their home address (YCombinator 2021).

Successfully employing such elements could also motivate and engage consumers to act more sustainably. Information derived from the reverse use of customer data can strengthen the impact of game elements, and linking customers' 'own' data with game elements can support consumers' dietary changes. For example, customers who wish to purchase more climate-friendly food could gain points and status levels in the game by shifting their consumption patterns towards meat substitutes or fish. Similarly, customers could receive information about how much carbon dioxide they saved as a result of their choices. As Mulcahy, Zainuddin, and Russell-Bennett (2020) noted, gamification may be used to provide knowledge, increase awareness and stimulate desired end states and cause – effect relationships. One of the strengths of the gamification approach is that it does not necessarily require consumers to set their goals, such as making healthier choices. Instead, game elements can be used to reward consumers' behaviours that are

beneficial for them, society or the environment. A good example of this is how the mobile game Pokémon Go was able to get young people to take walks outside without them having the goal of increasing physical activity (Reisch, Sunstein, and Gwozdz 2016).

Customer experience

Customer experience has evolved into a focal concept for both business scholars and practitioners, as it broadens the scope of attention from products and services to the holistic customer experience that takes place throughout the customer journey – before, during and after the purchase. According to Becker and Jaakkola (2020, p. 642), customer experience 'comprises customers' non deliberate, spontaneous responses and reactions to offering-related stimuli along the customer journey'. While these stimuli can be diverse in nature, customer experience is a multi-dimensional construct consisting of cognitive, emotional, social, sensorial and behavioural dimensions (Lemon and Verhoef 2016).

Food retailers, supporting changes in customers' lives can be a source of enriched customer experiences. Therefore, food retailers could not only use products and stores as a means to deliver superior customer experiences but also harness the potential of reverse use of customer data and gamification in helping customers achieve favourable objectives that enhance their wellbeing. Changes in consumer's lives resulting from these transformative initiatives could become important elements of the overall customer experience, reconfiguring the food retail experience from being prosaic to being personally meaningful and societally impactful (see Rossman and Duerden 2019; Saarijärvi, Kuusela, and Rintamäki 2013; Saarijärvi et al. 2016) and thus broadening the scope of attention from transactions to transformations.

In a similar vein, Siebert et al. (2020) recently extended the customer journey model by identifying smooth and sticky customer journeys. The first term refers to firms enrolling customers in loyalty loops by focusing on facilitating predictable, easy and smooth customer journeys. The latter, on the contrary, refers to involvement spirals with endless variation resulting in unpredictable, exciting and sticky customer journeys. Siebert et al. (2020) concluded that the smooth journey model fits well with instrumental service categories (e.g. business hotels, insurance and transportation), whereas sticky journey models are more suitable to recreational service categories (e.g. driving clubs, lifestyle media and content-sharing networks) where customers are looking for challenges, fun times and thrills. In the context of this study, we argue that when broadening the scope of attention from transactions to transformations, food retailing can become more of a recreational industry rather than an instrumental one. Towards that end, through reverse use of customer data and appropriate use of gamification, food retailers can engage customers in 'involvement spirals', that is, a cyclical pattern of experiences 'that motivate greater customer involvement over time' (p. 49). The food retailer may, for instance, take the opportunity to surprise the consumer with their data or interrupt them with a notification or nudge when they are making harmful decisions from the point of view of their sustainability goals, leading to the consumer changing their habits. This, in turn, can enhance consumers' engagement with the food retailer, that is, consumers become more engaged with the firm 'when a relationship based on trust and commitment is satisfying and has emotional bonding' (Pansari and Kumar 2017, p. 308).
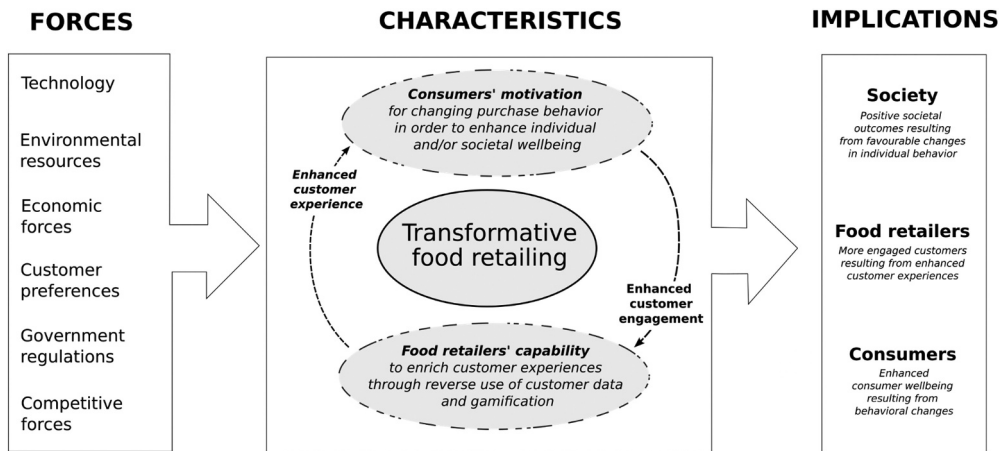
FORCES

Technology

Environmental resources

Economic forces

Customer preferences

Government regulations

Competitive forces

CHARACTERISTICS

Consumers' motivation for changing purchase behavior in order to enhance individual and/or societal wellbeing

Enhanced customer experience

Transformative food retailing

Enhanced customer engagement

Food retailers' capability to enrich customer experiences through reverse use of customer data and gamification

IMPLICATIONS

Society
Positive societal outcomes resulting from favourable changes in individual behavior

Food retailers
More engaged customers resulting from enhanced customer experiences

Consumers
Enhanced consumer wellbeing resulting from behavioral changes

Figure 1. Forces, characteristics and implications of transformative food retailing.

Conceptualizing transformative food retailing

Conceptual frameworks play an important role in advancing academic and practical knowledge. They integrate prior knowledge, provide multi-level insights, develop new venues for research and practice (Lindgreen et al. 2021), bridge existing theories and 'broaden the scope of our thinking' (Gilson and Goldberg 2015, p. 28). To develop of a conceptual framework, we follow the guidelines by MacInnis (2011) who introduces four types for conceptual contributions: envisioning new ideas, relating ideas, explicating ideas, or debating ideas. We base our style of conceptual development specially to *envisioning new ideas*, and in more detail, to 'identifying' which refers to making known something that has remained unknown (MacInnis 2011). In the context of our study, the aim of this type of conceptualization is to introduce a construct (transformative food retailing) that has not been given adequate attention but is considered relevant both theoretically and managerially. Toward that end, our contribution is situated in the context of discovery rather than justification, with the aim of promoting the 'conception of new ideas (e.g. new constructs)' (Yadav 2010, p. 2), which is considered critically important in contemporary marketing research (see also Jaakkola, 2020).

Following these guidelines for conceptual development, we next introduce the elements of our framework. First, 'forces' refer to the set of drivers that together influence the food retail industry to evolve towards being transformative. Second, 'characteristics' capture what eventually constitutes the phenomenon of food retail as transformative. Third, 'implications' summarise how transformative food retailing influences consumers, companies and society at large. Figure 1 outlines an overview of these key components.

Forces that shape food retail to become transformative

Kumar (2018) presented six categories of forces that serve as instigators for a transformation to occur. *Technology* refers to the vast advances in technology that dramatically change business functions. These developments not only impact companies' processes but also influence consumers' expectations as they become aware of how, for example, digitalisation enables new ways to design memorable

Table 2. Competitive forces shaping food retailing (modified from Kumar 2018).

Force	Description in the context of food retail
Technology	Recent technological advances are transforming retailing (Shankar et al. 2021). In the context of food retailing, enhanced digital capabilities allow companies to design mobile applications and other digital services that extend their role from selling food items to supporting customers' value-creating processes (e.g. Saarijärvi et al. 2014). For example, food retailers can serve their customers by analysing customer loyalty card data for the benefit of the customer, i.e. informing how consumers can eat healthier or decrease the carbon footprint of their groceries.
Environmental resources	Retailers face demands from both consumers and policy-makers to better consider various environmental and sustainability issues (see Erez 2019). Recent calls for sustainable retailing discuss these developments (Vadakkepatt et al. 2021). The food that consumers consume has several environmental and sustainability implications, which is why the mounting demands in those fields also influence food retailers.
Economic forces	Changes in the economic landscape naturally influence consumers' spending habits and further their food purchase behaviour. Transformative initiatives can, however, take forms that can create value regardless of consumers' spending power. For example, food retailers may assist consumers in changing their behaviour towards more affordable products.
Customer preferences	Food retailers should mirror their customers' preferences. Consumers' environmental consciousness, need for personalised content and preference for experiences rather than products (Kumar 2018) can encourage food retailers to look beyond their traditional retail mix (e.g. Arenas-Gaitán, Peral-Peral, and Reina-Arroyo 2021; Blut, Teller, and Floh 2018). Here, leveraging customer data for driving preferred behavioural change can meet needs that have thus far remained unaddressed.
Government regulations	The Unites Nations Sustainable Development Goals (UN SDGs), among other things, exert pressure on policymakers to design and implement initiatives that impact food retailers to better take into account aspects such as climate actions.
Competitive forces	Assisting consumers in their behavioural changes can be a unique source for differentiation and competitive advantage (Saarijärvi et al. 2016). With cutting-edge data analytics (see Wedel and Kannan 2016), food retailers could even showcase how they can help customers achieve healthier food diets or decrease their carbon footprints – both themes are examples of consumer-related domains that are considered increasingly relevant.

experiences that contribute to enhanced engagement with the brand (Kumar 2018). *Environmental resources* is an important theme as the pressure to be environmentally responsible is mounting. As Kumar (2018, p. 6) notes, 'a more prudent use of valuable resources through marketing actions is emerging as the way forward for firms'. *Economic forces* not only refer to traditional fundamentals, such as household income levels or consumer discretionary spending levels, but also signal for retailers the importance of offering value across all income and price spectrums. *Competitive forces* and *government regulations* characterise the nature of globalised competition today and the ways in which governments aim to regulate competition, including protecting consumers from unfair trade practices and preventing companies from causing harm to society. Finally, *customer preferences* refer to a set of diverse factors, including the need for authenticity, environmental consciousness, personalised content and preference for experiences rather than products.

While the abovementioned forces originally witness the need for transformative marketing, they also provide a solid basis for envisioning food retailing as a transformative avenue (Table 2). In the context of food retailing, these forces uncover 'the why' of transformativeness; that is, their confluence helps in understanding the evolution towards transformative food retailing better.

Characteristics of transformative food retailing

For transformation to occur, both food retailers and consumers must play their roles. Only through both actors' interactions can such changes that contribute to enhanced wellbeing on the individual and societal levels occur. As noted by Kumar (2018), for any meaningful change to materialise, it is important to uncover the tension between 'what is' and 'what ought to be'. Here, the latter refers, on the one hand, to customers' need for changing purchase behaviour in order to enhance individual and/or societal wellbeing and, on the other hand, to food retailers' enhanced willingness and capabilities to address that need through a combination of reverse use of customer data and gamification. These, in turn, can lead to enriched customer experiences and further enhance customer engagement (Figure 1).

From the customers' perspective, when considering behavioural change, the elements of motivation, opportunity and abilities generally need to be involved (MacInnis and Jaworski 1989). Transformative food retailing begins from the assumption that at least some amount of motivation is already present; that is, consumers have the willingness and motivation to change their behaviour, and the food retailer can support and enable this transformation. However, transformative food retailing can also help in nudging consumers who are not actively pursuing healthier or sustainable choices. Consumers can receive direct support for altering their choices, whether related to learning how to eat healthier or how to purchase more sustainably produced food. Consequently, consumers are equipped with a greater ability to implement changes in their everyday lives. In this endeavour, various game elements assist customers in remaining motivated to make changes and meet their goals.

From the food retailers' perspective, this necessitates looking beyond traditional retail service offerings and serving customers through information. In addition to food products, food retailers serve customers by providing them with information to support behavioural changes. Here, food retailers' ability to leverage customer loyalty programmes is critically important. Loyalty schemes should not only be considered merely a mechanism for building customer commitment in exchange for economic or other rewards, but also as a vehicle for collecting personalised data that can be used to develop information that is relevant for consumers' behavioural changes; customer loyalty programmes are means for food retailers to serve their customers through data. Digitalisation allows food retailers to design mobile apps, integrate customer loyalty card data with other relevant data and use game elements in facilitating consumers' behavioural changes (see Table 3 for illustrative examples). For food retailers, such initiatives are ways to develop a competitive advantage by enhancing the customer experience and building engagement.

Overall, transformative food retailing can be defined as food retailers supporting customers' behavioural changes that benefit individuals, society at large and companies. These changes can have many implications at respective levels of analysis and are discussed next in more detail.

Implications of transformative food retailing

Enhanced wellbeing for consumers

In line with the aims of TSR and TM, food retailing can become a more important and recognised source for consumers' wellbeing and, therefore, also act as a new potential

Table 3. Illustrative examples of mobile apps related to food retail transformations.

Case example	Description
S Group	The Finnish grocery chain S group created an app with several customer feedback features: 1) expenditure on different food groups, 2) share of domestic food produce among total food purchases, 3) total and food-group-based carbon dioxide emissions and 4) basic nutrient content of the purchases (e.g. energy, macronutrients, fibre and salt). The fourth feature (nutrient calculation) also contains an expert-designed feedback system based on nutrient infographics and written feedback.
Kesko Corporation	The Finnish grocery chain Kesko provides a mobile app called 'K-Ruoka' ('K-Food') to its customers. The app contains personalised targeted marketing communications, digital coupons, competitions and quizzes and information about each customer's purchases (based on loyalty card data), wherein the customer may observe their purchases on a timeframe from one week to five years. The app also shows the prices, total and food-group-based carbon dioxide emissions and the share of purchases from Finnish providers. Customers can also set goals for themselves, and the app suggests products to help them meet their goals (e.g. buy foods associated with lower carbon dioxide emissions).
Sainsbury's	'The Great Big Fruit and Veg Challenge' uses interactive targets to gamify the purchase of fruit and vegetables. For each customer, the in-app tracker sets personalised fruit and vegetable targets, which can be completed through in-store and online purchases during a period of 28 days based on their typical shopping habits and the average portions of fruit and vegetables they normally buy. This enables customers to earn bonus Nectar points, which can be spent at partner stores, including Sainsbury's, Argos and Habitat. The challenge is available exclusively on the Nectar app, allowing customers to monitor their progress through personalised updates on the app's dashboard. An analysis conducted in partnership with the University of Leeds showed that Nectar card holders who participated in the challenge took home an extra 3.6 portions of fruit and vegetables per week during the challenge.

source of providing superior customer value (Kumar and Venkatesan 2021). Opportunities for such behavioural changes abound and go beyond food-related health; consumers may, for example, want to change their diet to be vegetarian or wish to start purchasing food items that have a smaller carbon footprint (see Konttinen et al. 2021). Consequently, in addition to buying food items for everyday use, consumers who are motivated to make such dietary changes may ask food retailers for 'help' in supporting their endeavours. As discussed above, digital apps distribute personalised information that is based on loyalty card data to support these changes and guide future purchase behaviour. Importantly, value is not derived until customers actually benefit from using it (Lim et al. 2019; c.f. Saarijärvi et al. 2016). For consumers, such new services that go beyond the traditional role of a company can reconfigure food retailers' meaning in consumers' lives and eventually result in involvement spirals and enhanced engagement (c.f. Siebert et al. 2020). Furthermore, reverse use of customer data and gamification can also be utilised by retailers to nudge consumers who are not actively pursuing societally beneficial goals. This can be done by, for example, giving them direct cues for action, reminding them, making sustainable choices the easy option or the default option, or even designing tailored promotions to facilitate behavioural changes. Accordingly, the impact of transformative food retailing can be realised in various consumer groups, including people with diverse socio-economic backgrounds.

New opportunities for retailers to build customer engagement

Food retailers' use of individualised grocery loyalty card data offers unique means for facilitating behavioural changes, both directly through information provision (e.g. digital apps; see Table 3) or indirectly by influencing consumers' healthy choice architecture through, for example, tailored promotions that encourage favourable behavioural change

(i.e. nudging; e.g. Trafford 2021). This can rebalance a food retailer's role from selling food items to supporting its customers' wellbeing, and at best, it can also serve as a source of sustainable competitive advantage, making transformative food retailing a strategic issue. Food retailers can go beyond the traditional ways of nudging consumers towards more favourable behaviour. Although food retailers may have previously focused on designing interventions to alter consumers' choice architectures for in-store purchases (see, e.g. Bauer et al. 2022), using reverse use of customer data and gamification, they can implement a more systematic approach that enables consumers to start shifting, for example, towards a more plant-based diet, leading eventually to enhanced customer experiences. Thus, in the context of transformative food retailing, nudging takes new forms of facilitating consumer behaviour. In that respect, transformative food retailing shifts attention beyond traditional retail logistics, supply and marketing functions, highlighting food retail as a potentially significant driver of consumer and societal changes. This is in line with Kumar's (2018) call for new initiatives that tap into consumers' environmental consciousness and the need for personalised content as well as preferences for experiences rather than products. However, a one-sided focus on customer value does not make a healthy business, and food retailers should also focus on the rationale of transformative food retailing initiatives from the perspective of growth and profitability. In that respect, customers may favour the food retailer owing to its ability to support their desired behavioural changes, resulting in increased customer satisfaction, emotionally induced relationships and enhanced customer engagement (Pansari and Kumar 2017). Furthermore, as the information driving behavioural changes is only as accurate and complete as the original data obtained by the retailer, consumers may want to concentrate more on their food purchases from the food retailer to be served with as complete information as possible. Consequently, the introduction of transformative food retailing can also result in more loyal customers, both in terms of attitudinal and behavioural loyalty (Kumar, Dalla Pozza, and Ganesh 2013).

However, building strategic advantage around such initiatives necessitates a customer loyalty programme or other infrastructure through which appropriate data can be collected, analysed and converted into information that is meaningful for the customer. As discussed by Drucker (1988, p. 4), information is information only when it is endowed with relevance and purpose. Information should change the way the receiver perceives something; it should have an impact on his or her judgment and behaviour (Davenport and Prusak 1998, p. 3). In addition, appropriate information delivery is also critical (Lim et al. 2019). In this area, mobile applications or other internet-based services offer convenient solutions but also require investment and meticulous design and development.

Benefits for the society at large

Transformative food retailing can result in several positive societal outcomes. However, collective societal challenges call for changes in individual behaviour. For example, to meet the SDGs and relieve the burden of non-communicable diseases, an urgent shift towards more sustainable food choices is needed. As dietary behaviours are modifiable and consumers tend to purchase food on a daily or weekly basis, these shifts could have clear implications for public health, health equality and the environment (Nevalainen et al. 2018). This, however, calls for new collaborative initiatives between food retailers, academics and public health authorities; effective strategies need to be designed 'that take

into account shoppers' preferences, socioeconomic barriers and health-related knowledge' (Thorndike 2020, p. 2). Furthermore, it is important not to focus on individual consumers alone as the ones responsible for making changes towards sustainability through their behaviours and decisions, as these are always connected to what is possible (in terms of resources and abilities) or normal and desirable in a given societal context (Mesiranta, Närvänen, and Mattila 2022). Thus, shifting attention towards food retail as a transformative avenue also reconfigures the societal role of the food retailing industry, allowing them to take an active role in delivering sustainability transformations (Vadakkepatt et al. 2021; see also Lahtinen and Yrjölä 2019).

Discussion and conclusion

The purpose of this study was to explore and analyse transformative food retailing. Using our tentative framework (Figure 1), we identify three areas of contributions. First, although TSR has been a dynamic and growing field over the past decade, our study is among the first to consider the transformative potential of food retailing in more detail. We define transformative food retailing as food retailers supporting consumers' behavioural changes that benefit individuals, companies and society at large. Towards that end, referring to conceptual contributions through envisioning new ideas (MacInnis 2011), we hope that our study can contribute by introducing a new perspective to food retailing and increasing awareness about a phenomenon that has thus far remained unestablished. Through our definition of transformative food retailing and the associated forces, characteristics and implications, we further hope to help other scholars explore and evaluate this emerging phenomenon in more detail.

Second, we emphasise the roles of the confluencing forces (Kumar 2018) and the three complementary literature streams (reverse use of customer data, gamification and customer experience) in our conceptualisation of transformative food retailing. As illustrated in our framework, together, they help uncover the why, what and how of transformative food retailing. This study is the first to explore and discuss the potential of these literature streams in the context of food retailing. Together, they form a kaleidoscopic view of food retailing, setting a platform for future research to empirically investigate its antecedents and outcomes in more detail.

Third, although the number of sources and possibilities for collecting customer data has increased, issues surrounding data privacy have become critically important for retailers. Data privacy in retailing comprises a diverse set of consumer, retailer and regulatory tensions, as well as trade-offs and compromises (Martin et al. 2020). Despite the benefits of data-driven insights, privacy needs to be protected (Wieringa et al. 2021). Consumers' decisions to disclose personal data are influenced by their perception of both negative and positive outcomes. For instance, when consumers choose to share their personal data, they can receive more personalised and enhanced services that could otherwise be costly to obtain (Wieringa et al. 2021). Towards that end, transformative food retailing can address many of these challenges by harnessing the transformative potential of customer data for the wellbeing of the consumer (Saarijärvi et al. 2016), helping them perceive the positive outcomes of customer data collection. This is well aligned with Esbjerg, Laursen, and Schulze (2022) who emphasize that while an increasing number of people are being concerned about climate change,

social concerns, and animal welfare, retailers should become more proactive in facilitating changes in consumer behaviour. Accordingly, with an increasing number of examples (see Table 3), transformative food retail could represent a pathway for the utilisation of customer data for both the consumer and the common good. Further, these activities can and should feature wide accessibility and well-tailored content to avoid contributing to increased health inequality (e.g. between sociodemographic groups with marked differences in digital literacy).

Our conceptual effort is not without limitations. First, we highlighted the role of three literature streams (reverse use of customer data, gamification and customer experience) in understanding the transformative potential of food retailing. In addition, other research domains and theoretical perspectives, such as customer perceived value, could reveal relevant dimensions of the research phenomenon but were not addressed within the scope of this study. Second, the purpose of our framework is to show pathways, not to provide an exhaustive list of all possible forces, characteristics and implications. Future research should investigate the dynamic between enhanced customer experience and engagement in more detail, as well as further explore the diverse implications resulting from transformative food retailing.

Nevertheless, we hope that our framework inspires other researchers to address the many research opportunities in transformative food retailing. For example, the various methodological issues related to collecting and analysing customer loyalty card data in a secure way and linking them with other complementary data sources (e.g. carbon footprint data) offer ample research opportunities. We need to understand what, how and when this is possible and acceptable (Dolan et al. 2021; Clarke et al. 2021). Interventional designs that study the impact of transformative food retailing initiatives on consumer behaviour and wellbeing provide additional venues for future research that could shed more light on their various interlinkages. In that respect, there is a related research strand focused on the effect of transformative food retailing on consumers in terms of traditional TSR dimensions (e.g. wellbeing) and its effect on the depth of consumers' engagement with retailers. Finally, more focus should be placed on understanding how these initiatives help food retailers build a sustainable competitive advantage. There is a clear need to understand retailers' requirements while they seek to help customers via transformative initiatives, as doing so requires a considerable investment into data, systems, devices, apps and data analysis, and requires some return on investment. Showing retailers how these initiatives fit with lifetime value, engagement, loyalty and attitudinal behaviours will be significant to their success.

In conclusion, transformative food retailing is at the beginning of its development and offers exciting opportunities for retailers and consumers, with the potential to transform food retail as a service industry. We hope that our paper can encourage other service sectors and researchers to apply these insights to uncover their transformative potentials.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

Anderson, L., and A. L. Ostrom. 2015. "Transformative Service Research: Advancing Our Knowledge About Service and Well-Being." *Journal of Service Research* 18 (3): 243–249. doi:10.1177/1094670515591316.

Anderson, L., A. L. Ostrom, C. Corus, R. P. Fisk, A. S. Gallanruok, M. Giraldo, M. Mende, et al. 2013. "Transformative Service Research: An Agenda for the Future." *Journal of Business Research* 66 (8): 1203–1210. doi:10.1016/j.jbusres.2012.08.013.

Arenas-Gaitán, J., D. B. Peral-Peral, and J. Reina-Arroyo. 2021. "Ways of Shopping & Retail Mix at the Greengrocer's." *Journal of Retailing & Consumer Services* 60: 102451. doi:10.1016/j.jretconser.2021.102451.

Arno, A., and S. Thomas. 2016. "The Efficacy of Nudge Theory Strategies in Influencing Adult Dietary Behaviour: A Systematic Review and Meta-Analysis." *BMC Public Health* 16 (1): 676. doi:10.1186/s12889-016-3272-x.

Aversa, J., T. Hernandez, and S. Doherty. 2021. "Incorporating Big Data Within Retail Organizations: A Case Study Approach." *Journal of Retailing & Consumer Services* 60: 3. doi:10.1016/j.jretconser.2021.102447.

Babin, B. J., C. Feng, and A. Borges. 2021. "As the Wheel Turns Toward the Future of Retailing." *Journal of Marketing Theory & Practice* 29 (1): 78–91. doi:10.1080/10696679.2020.1860688.

Bansal, S., P. Nangia, S. Singh, and I. Garg. 2022. "Electronic Retailing: Mapping the Past for Informing the Future." *The International Review of Retail, Distribution & Consumer Research* 1–18. doi:10.1080/09593969.2022.2152075.

Bauer, J. M., S. C. Aarestrup, P. G. Hansen, and L. A. Reisch. 2022. "Nudging More Sustainable Grocery Purchases: Behavioural Innovations in a Supermarket Setting." *Technological Forecasting & Social Change* 179: 179. doi:10.1016/j.techfore.2022.121605.

Becker, L., and E. Jaakkola. 2020. "Customer Experience: Fundamental Premises and Implications for Research." *Journal of the Academy of Marketing Science* 48 (4): 630–648. doi:10.1007/s11747-019-00718-x.

Blocker, C. P., and A. Barrios. 2015. "The Transformative Value of a Service Experience." *Journal of Service Research* 18 (3): 265–283. doi:10.1177/1094670515583064.

Blut, M., C. Teller, and A. Floh. 2018. "Testing Retail Marketing-Mix Effects on Patronage: A Meta-Analysis." *Journal of Retailing* 94 (2): 113–135. doi:10.1016/j.jretai.2018.03.001.

Bradlow, E. T., M. Gangwar, P. Kopalle, and S. Voleti. 2017. "The Role of Big Data and Predictive Analytics in Retailing." *Journal of Retailing* 93 (1): 79–95. doi:10.1016/j.jretai.2016.12.004.

Broers, V. J. V., C. De Breucker, S. Van den Broucke, and O. Luminet. 2017. "A Systematic Review and Meta-Analysis of the Effectiveness of Nudging to Increase Fruit and Vegetable Choice." *European Journal of Public Health* 27 (5): 912–920. doi:10.1093/eurpub/ckx085.

Bucher, T., C. Collins, M. Rollo, T. McCaffrey, N. De Vlieger, D. Van der Bend, and F. Perez-Cueto. 2016. "Nudging Consumers Towards Healthier Choices: A Systematic Review of Positional Influences on Food Choice." *The British Journal of Nutrition* 115 (12): 2252–2263. doi:10.1017/S0007114516001653.

Childs, M., T. Blanchflower, S. Hur, and D. Matthews. 2020. "Non-Traditional Marketplaces in the Retail Apocalypse: Investigating consumers' Buying Behaviours." *International Review of Retail & Distribution Management* 48 (3): 262–286. doi:10.1108/IJRDM-03-2019-0079.

Clarke, H., S. Clark, M. Birkin, H. Iles-Smith, A. Glaser, and M. A. Morris. 2021. "Understanding Barriers to Novel Data Linkages: Topic Modeling of the Results of the LifeInfo Survey." *Journal of Medical Internet Research* 23 (5): e24236. doi:10.2196/24236.

da Costa Peres, C. M., D. S. Gardone, B. V. de Lima Costa, C. K. Duarte, M. C. Pessoa, and L. L. Mendes. 2020. "Retail Food Environment Around Schools and Overweight: A Systematic Review." *Nutrition Reviews* 78 (1): 841–856. doi:10.1093/nutrit/nuz110.

Davenport, T. H., and L. Prusak. 1998. *Working Knowledge: How Organizations Manage What They Know*. Boston: Harvard Business School Press.

Dolan, E. H., K. Shiells, J. Goulding, and A. Skatova. 2021. "Public Attitudes Towards Sharing Loyalty Card Data for Academic Health Research: A Qualitative Study." *BMC Medical Ethics* 23. doi:10.1186/s12910-022-00795-8.

Drucker, P. F. 1988. "The Coming of the New Organization." *Harvard Business Review* 66 (1): 45–53.

Erevelles, S., N. Fukawa, and L. Swayne. 2016. "Big Data Consumer Analytics and the Transformation of Marketing." *Journal of Business Research* 69 (2): 897–904. doi:10.1016/j.jbusres.2015.07.001.

Erez, R. 2019. Sustainability in Retail. Good for Business, Great for Humanity. Available at: https://www.forbes.com/sites/royerez/2019/10/01/sustainability-in-retail-good-for-business-great-for-humanity/#1fdb37e76dec [accessed May 27, 2022].

Erkkola, M., S. M. Kinnunen, H. R. Vepsäläinen, J. M. Meinilä, L. Uusitalo, H. Konttinen, H. Saarijärvi, M. Fogelholm, and J. Nevalainen. 2022. "A Slow Road from Meat Dominance to More Sustainable Diets: An Analysis of Purchase Preferences Among Finnish Loyalty-Card Holders." *PLOS Sustain Transform* 1 (6): e0000015. doi:10.1371/journal.pstr.0000015.

Esbjerg, L., K. B. Laursen, and M. Schulze. 2022. "Who are the Drivers of Change? On the Growing Role of Retailers in Ongoing Attempts to Reorient Markets for Animal Welfare." *The International Review of Retail, Distribution & Consumer Research* 32 (4): 468–487. doi:10.1080/09593969.2022.2090992.

Gilson, L. L., and C. B. Goldberg. 2015. "Editors' Comment: So, What is a Conceptual Paper?" *Group & Organization Management* 40 (2): 127–130. doi:10.1177/1059601115576425.

Gummesson, E. 2002. "Practical Value of Adequate Marketing Management Theory." *European Journal of Marketing* 36 (3): 325–349. doi:10.1108/03090560210417156.

Guthrie, J., L. Mancino, and C. -T.J. Lin. 2015. "Nudging Consumers Toward Better Food Choices: Policy Approaches to Changing Food Consumption Behaviors." *Psychology & Marketing* 32 (5): 501–511. doi:10.1002/mar.20795.

Hagberg, J., M. Sundström, and E. -Z. Nicklas. 2016. "The Digitalization of Retailing: An Exploratory Framework." *International Journal of Retail & Distribution Management* 44 (7): 694–712. doi:10.1108/IJRDM-09-2015-0140.

Hänninen, M., S. K. Kwan, and L. Mitronen. 2021. "From the Store to Omnichannel Retail: Looking Back Over Three Decades of Research." *The International Review of Retail, Distribution & Consumer Research* 31 (1): 1–35. doi:10.1080/09593969.2020.1833961.

Hänninen, M., J. Luoma, and L. Mitronen. 2021. "Information Standards in Retailing? A Review and Future Outlook." *The International Review of Retail, Distribution & Consumer Research* 31 (2): 131–149. doi:10.1080/09593969.2020.1845224.

Hawley, L., M. Raciti, and M. A. Lawley. 2017. "Transformative Service Research: A Systematic Literature Review." Paper presented at the Australian and New Zealand Marketing Academy Conference (ANZMAC): Marketing for Impact, 4-6 December, RMIT University, Melbourne, Australia.

Helm, S., S. H. Kim, and S. Van Riper. 2020. "Navigating the 'Retail apocalypse': A Framework of Consumer Evaluations of the New Retail Landscape." *Journal of Retailing & Consumer Services* 54: 101683. doi:10.1016/j.jretconser.2018.09.015.

Huotari, K., and J. Hamari. 2012. "Defining Gamification: A Service Marketing Perspective." In Proceedings of the 16th International Academic MindTrek Conference, Tampere, Finland, 17–22.

Jaakkola, E. 2020. "Designing Conceptual Articles: Four Approaches." *AMS Review* 10: 18–26. doi:10.1007/s13162-020-00161-0.

Koivisto, J., and J. Hamari. 2019. "The Rise of Motivational Information Systems: A Review of Gamification Research." *International Journal of Information Management* 45: 191–210. doi:10.1016/j.ijinfomgt.2018.10.013.

Konttinen, H., O. Halmesvaara, M. Fogelholm, H. Saarijärvi, J. Nevalainen, and M. Erkkola. 2021. "Sociodemographic Differences in Motives for Food Selection: Results from the LoCard Cross-Sectional Survey." *The International Journal of Behavioral Nutrition and Physical Activity* 18 (1): 1. doi:10.1186/s12966-021-01139-2.

Krafft, M., V. Kumar, C. Harmeling, S. Singh, T. Zhu, J. Chenh, M. Duncani, W. Fortin, and E. Rosa. 2021. "Insight is Power: Understanding the Terms of the Consumer-Firm Data Exchange." *Journal of Retailing* 97 (1): 133–149. doi:10.1016/j.jretai.2020.11.001.

Kumar, V. 2018. "Transformative Marketing: The Next 20 Years." *Journal of Marketing* 82 (4): 1–12. doi:10.1509/jm.82.41.

Kumar, V., I. Dalla Pozza, and J. Ganesh. 2013. "Revisiting the Satisfaction–Loyalty Relationship: Empirical Generalizations and Directions for Future Research." *Journal of Retailing* 89 (3): 246–262. doi:10.1016/j.jretai.2013.02.001.

Kumar, V., and R. Venkatesan. 2021. ""Transformation of Metrics and Analytics in Retailing: The Way Forward." *Journal of Retailing* 97 (4): 496–506. doi:10.1016/j.jretai.2021.11.004.

Lahtinen, S., and M. Yrjölä. 2019. "Managing Sustainability Transformations: A Managerial Framing Approach." *Journal of Cleaner Production* 223: 815–825. doi:10.1016/j.jclepro.2019.03.190.

Lemon, K. N., and P. C. Verhoef. 2016. "Understanding Customer Experience Throughout the Customer Journey." *Journal of Marketing* 80 (6): 69–96. doi:10.1509/jm.15.0420.

Leppäniemi, M., H. Karjaluoto, and H. Saarijärvi. 2017. "Customer Perceived Value, Satisfaction, and Loyalty: The Role of Willingness to Share Information." *The International Review of Retail, Distribution & Consumer Research* 27 (2): 164–168. doi:10.1080/09593969.2016.1251482.

Lim, C., K. -H. Kim, M. -J. Kim, J. -Y. Heo, K. -J. Kim, P. P, and P. P. Maglio. 2018. "From Data to Value: A Nine-Factor Framework for Data-Based Value Creation in Information-Intensive Services." *International Journal of Information Management* 39: 121–135. doi:10.1016/j.ijinfomgt.2017.12.007.

Lim, C., M. -J. Kim, K. -H. Kim, K. -J. Kim, and P. P. Maglio. 2019. "Customer Process Management: A Framework for Using Customer-Related Data to Create Customer Value." *Journal of Service Management* 30 (1): 105–131. doi:10.1108/JOSM-02-2017-0031.

Lindgreen, A., A. C. Di Benetto, R. J. Brodie, and E. Jaakkola. 2021. "How to Develop Great Conceptual Frameworks for Business-To-Business Marketing." *Industrial Marketing Management* 94: A2–10. doi:10.1016/j.indmarman.2020.04.005.

MacInnis, D. J. 2011. "A Framework for Conceptual Contributions in Marketing." *Journal of Marketing* 75 (4): 136–154. doi:10.1509/jmkg.75.4.136.

MacInnis, D. J., and B. J. Jaworski. 1989. "Information Processing from Advertisements: Toward an Integrative Framework." *Journal of Marketing* 53 (4): 1–23. doi:10.1177/002224298905300401.

Martin, K. D., J. J. Kim, R. W. Palmatier, L. Steinhoff, D. W. Stewart, B. A. Walker, Y. Wang, and S. K. Weaven. 2020. "Data Privacy in Retail." *Journal of Retailing* 96 (4): 474–489. doi:10.1016/j.jretai.2020.08.003.

Meinilä, J., H. Hartikainen, H. Tuomisto, L. Uusitalo, H. Vepsäläinen, M. Saarinen, S. Kinnunen, et al. 2022. "Food Purchase Behaviour in a Finnish Population: Patterns, Carbon Footprints and Expenditures." *Public Health Nutrition* 25 (11): 3265–3277. doi:10.1017/S1368980022001707.

Mende, M., and S. M. Noble. 2019. "Retail Apocalypse or Golden Opportunity for Retail Frontline Management?" *Journal of Retailing* 95 (2): 84–89. doi:10.1016/j.jretai.2019.06.002.

Mesiranta, N., E. Närvänen, and M. Mattila. 2022. "Framings of Food Waste: How Food System Stakeholders are Responsibilized in Public Policy Debate." *Journal of Public Policy & Marketing* 41 (2): 144–161. doi:10.1177/07439156211005722.

Mulcahy, R. F., N. Zainuddin, and B. Russell-Bennett. 2020. "Transformative Value and the Role of Involvement in Gamification and Serious Games for Well-Being." *Journal of Service Management* 32 (2): 218–245. doi:10.1108/JOSM-05-2019-0137.

Murray, C. J. L., A. Y. Aravkin, P. Zheng, C. Abbafati, K. M. Abbas, M. Abbasi-Kangevari, F. Abd-Allah, et al. 2020. "Global Burden of 87 Risk Factors in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019." *The Lancet* 396 (10258): 1223–1249. doi:10.1016/S0140-6736(20)30752-2.

Nevalainen, J., M. Erkkola, H. Saarijärvi, T. Näppilä, and M. Fogelholm. 2018. "Large-Scale Loyalty Card Data in Health Research." Digital Health 4: 1–10. doi:10.1177/205520761881689.

Nilsson, E. 2022. "Changes in the Retail Landscape – a Nordic Perspective." *The International Review of Retail, Distribution & Consumer Research* 32 (4): 349–350. doi:10.1080/09593969.2022.2101625.

Pallant, J. I., J. L. Pallant, S. J. Sands, C. R. Ferraro, and E. Afifi. 2022. "When and How Consumers are Willing to Exchange Data with Retailers: An Exploratory Segmentation." *Journal of Retailing & Consumer Services* 64: 102774. doi:10.1016/j.jretconser.2021.102774.

Pansari, A., and V. Kumar. 2017. "Customer Engagement: The Construct, Antecedents, and Consequences." *Journal of the Academy of Marketing Science* 45 (3): 294–311. doi:10.1007/s11747-016-0485-6.

Rahman, A. 2021. "Sources and Categories of Well-Being: A Systematic Review and Research Agenda." *Journal of Service Theory & Practice* 31 (1): 1–33. doi:10.1108/JSTP-01-2020-0024.

Reisch, L. A., C. R. Sunstein, and W. Gwozdz. 2016. *Better Than a Whip? European Attitudes Toward Health Nudges*. SSRN: Social Science Research Network. doi:10.2139/ssrn.2836325.

Roggeveen, A. L., and R. Sethuraman. 2020. "Customer-Interfacing Retail Technologies in 2020 & Beyond: An Integrative Framework and Research Directions." *Journal of Retailing* 96 (3): 299–309. doi:10.1016/j.jretai.2020.08.001.

Rossman, J. R., and M. D. Duerden. 2019. *Designing Experiences*. New York: Columbia Business School Publishing.

Saarijärvi, H., C. Grönroos, and H. Kuusela. 2014. "Reverse Use of Customer Data: Implications for Service-Based Business Models." *The Journal of Services Marketing* 28 (7): 529–537. doi:10.1108/JSM-05-2013-0111.

Saarijärvi, H., H. Kuusela, P. K. Kannan, G. Kulkarni, and T. Rintamäki. 2016. "Unlocking the Transformative Potential of Customer Data in Retailing." *The International Review of Retail, Distribution & Consumer Research* 26 (3): 225–241. doi:10.1080/09593969.2015.1105846.

Saarijärvi, H., H. Kuusela, and T. Rintamäki. 2013. "Facilitating customers' Post-purchase Food Retail Experiences." *British Food Journal* 115 (5): 653–665. doi:10.1108/00070701311331562.

Saarijärvi, H., L. Mitronen, and M. Yrjölä. 2014. "From Selling to Supporting - Leveraging Mobile Services in the Context of Food Retailing." *Journal of Retailing & Consumer Services* 21 (1): 26–36. doi:10.1016/j.jretconser.2013.06.009.

Saarijärvi, H., L. Sparks, S. Lahtinen, and D. Medway. 2019. "Food, Health, and Data: Developing Transformative Food Retailing." In *Case Studies in Food Retailing and Distribution*, edited by J. Byrom, 189–204. Cambridge: Woodhead Publishing.

Shankar, V. S., K. Kalyanam, P. Setia, A. Golmohammadi, S. Tirunillai, T. Douglass, J. Hennessey, S. Bull, and R. Waddoups. 2021. "How Technology is Changing Retail." *Journal of Retailing* 97 (1): 13–27. doi:10.1016/j.jretai.2020.10.006.

Shaw, S. C., G. Ntani, J. Baird, and C. A. Vogel. 2020. "A Systematic Review of the Influences of Food Store Product Placement on Dietary-Related Outcomes." *Nutrition Review* 78 (12): 1030–1045. doi:10.1093/nutrit/nuaa024.

Siebert, A., A. Gopaldas, A. Lindridge, and C. Simões. 2020. "Customer Experience Journeys: Loyalty Loops versus Involvement Spirals." *Journal of Marketing* 84 (4): 45–66. doi:10.1177/0022242920920262.

Sihvonen, J., and H. Luomala. 2017. "Hear What I Appreciate: Activation of Consumption Motives for Healthier Food Choices Across Different Value Segments." *The International Review of Retail, Distribution & Consumer Research* 27 (5): 502–514. doi:10.1080/09593969.2017.1383290.

Thaler, R. H., and C. R. Sunstein. 2008. *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press.

Thorndike, A. N. 2020. "Healthy Choice Architecture in the Supermarket: Does It Work?" *Social Science & Medicine* 266: 113459. doi:10.1016/j.socscimed.2020.113459.

Trafford, E. P., and A. de la Hunty. 2021. "A Gentle Nudge: Can Choice Architecture Play a Role in Retailers' Efforts to Promote Healthier Choices?." *Nutrition Bulletin* 46 (1): 98–109. doi:10.1111/nbu.12484.

Troebs, C. C., T. Wagner, and F. Heidemann. 2018. "Transformative Retail Services: Elevating Loyalty Through Customer Well-Being." *Journal of Retailing & Consumer Services* 45: 198–206. doi:10.1016/j.jretconser.2018.09.009.

Vadakkepatt, G. G., K. P. Winterich, V. Mittal, W. Zinn, L. Beitelspacher, J. Aloysius, and J. Reilman. 2021. "Sustainable Retailing." *Journal of Retailing* 97 (1): 62–80. doi:10.1016/j.jretai.2020.10.008.

van der Laan, L. N., and O. Orcholska. 2022. "Effects of Digital Just-In-Time Nudges on Healthy Food Choice–A Field Experiment." *Food Quality and Preference* 98: 104535. doi:10.1016/j.foodqual.2022.104535.

Wedel, M., and P. K. Kannan. 2016. "Marketing Analytics for Data-Rich Environments." *Journal of Marketing* 80 (6): 97–121. doi:10.1509/jm.15.0413.

Wieringa, J., P. K. Kannan, X. Ma, T. Reutterer, H. Risselada, and B. Skiera. 2021. "Data Analytics in a Privacy-Concerned World." *Journal of Business Research* 122: 915–925. doi:10.1016/j.jbusres.2019.05.005.

Yadav, M. S. 2010. "The Decline of Conceptual Articles and Implications for Knowledge Development." *Journal of Marketing* 74 (1): 1–19. doi:10.1509/jmkg.74.1.1.

YCombinator. 2021. Available at https://www.ycombinator.com/library/2z-pinduoduo-and-the-rise-of-social-e-commerce#footnote2 (accessed February 3, 2022).