Superfoods, super healthy

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Superfoods, Super Healthy: Myth or Reality? Examining Consumers' Repurchase and WOM Intention Regarding Superfoods: A Theory of Consumption Values Perspective

Abstract

'Superfoods' have become a popular diet style across the globe but are also criticized as a marketing gimmick. Despite the controversy, the essential drivers of superfood consumption and advocacy remain underexplored. Drawing upon the theory of consumption values and prospect theory, this study explores how consumers' value perceptions of superfoods influence their behavioral responses (i.e., repurchase and positive word-of-mouth intentions) by introducing the concept of *relative advantage* in food consumption. Based on a survey sample of 447 superfood consumers and structural equation modeling, our findings identify relative advantage as an important mediator in the cognitive process that converts consumers' value perceptions into behavioral responses. We also find buffering effects of perceived costs in the relationship between relative advantage and repurchase behavior. This research advances the understanding of consumers' modern food consumption habits and lifestyles and has important implications for academics, marketing practitioners and policy makers.

Keywords: Food consumption; Value perceptions; Relative advantage; Perceived costs; Structural equation modeling

1. Introduction

In recent years, the term 'superfood' has been widely seen on food packaging and in the media, and a 'super diet' style has become trendy (Clarkson et al., 2018; Ware, 2019). Interestingly, among foods that are considered healthy, those featuring health claims and the terms 'superfood,' 'superfruit' and 'supergrain' show remarkably large sales (Mintel, 2016). Social media and popular influencer culture also facilitate the popularity of superfoods (Liu, Choi & Mattila, 2019; Roth & Zawadzki, 2018). However, in contrast to consumers' increasing enthusiasm for superfoods, academic research has paid particular attention to the trend for superfood in the consumer market. More specifically, what drives consumers' superfood consumption remains underexplored (Muziri et al., 2021).

1.1 Conceptualizing superfood

Unlike other regulatory categories of food (e.g., 'organic food' or 'fair trade food'), the concept of superfood is relatively vague and is sometimes simply considered as a marketing gimmick (Nestle, 2018; Sikka, 2019). In general, superfoods refer to "foods with high levels of either nutrient or bioactive phytochemicals with human health benefits" (Taulavuori et al., 2013, p. 791). As a result of the ambiguous scope of superfoods, the European Food Safety Authority banned the word 'superfood' from appearing on any product if the producers failed to provide credible scientific evidence for their claim (Valentine, 2016). The UK National Health Service also suggests that claims of certain foods being 'super' are often inaccurate (Smith, 2020). However, against the authorities' interventions and regulations, the term 'superfood' continues to be used extensively in informal marketing communication and media coverage, which is driving consumers' increasing interest in and consumption of such foods. According to Google Trends (2021), the term 'superfoods' was searched for more times in 2020 during the COVID-19 pandemic than in previous years.

However, given the ambiguity of the definition of a superfood, 'super' is a subjective and perception-based concept in the consumer market. In the marketing literature, many concepts are based on consumers' subjective perceptions. For example, although there are commonly acknowledged luxury brands/products, 'luxury' is often viewed differently by different consumers. This means that a product (e.g., an iPhone) could be a luxury to one consumer but not to another. The motivation for consuming luxury can, however, be generalized, as consumers tend to have values that they perceive from luxury in common (Shukla, 2012; Shukla & Purani, 2012). Following this logic, the conceptualization of superfood in this study goes beyond the discourse around healthiness and nutrition and focuses on consumers' perceptions of whether or not a food is 'super' (Loyer & Knight, 2018).

1.2 Research gaps in superfood consumption

The majority of the academic research into superfoods to date focuses on the food science and nutrition aspects. In the field of marketing and consumer research, superfood research has largely been conceptual and exploratory. The literature has, for example, explored the effects of superfoods on health (van den Driessche et al., 2018), consumer demand and the production viability of superfoods (Graeff-Hönninger & Khajehei, 2019), environmental and social consequences of the increasing demand for superfoods (Magrach & Sanz, 2020), nutritional primitivism in the representations of superfoods in books (Loyer & Knight, 2018), and how superfoods are presented in the media in the age of food normlessness (MacGregor et al., 2018). Nevertheless, to date, the most fundamental question – what drives consumers' superfood consumption and advocacy – remains unexplored. Such inquiry is important, as it provides fundamental insights into why consumers respond positively to superfoods in comparison to the alternatives, and has important implications for researchers, marketing practitioners and policy makers. Our research aims to unpack the key motives for superfood consumption and

advocacy using the lens of consumption values and to present a comprehensive view of *why* consumers choose to repurchase and recommend superfoods rather than the alternatives.

In responding to the research questions, this research draws upon the theory of consumption values (Sheth et al., 1991) and regards consumer choice as a function of multiple consumption values. The theory of consumption values has been widely used in attempting to understand consumers' motivation for product and brand choices across different contexts, including food consumption (e.g., Rahnama, 2017; Thomé et al., 2020). Although the five consumption values identified (functional, emotional, social, epistemic, and situational) are independent of each other, they jointly influence consumers' purchase decisions (Sheth et al., 1991). We identified three gaps in the literature in terms of the application of the theory. First, consumption values are often used to predict consumers' purchase decisions, although how such value perceptions shape consumers' other behavioral tendencies remains underexplored. Therefore, in this research, in addition to consumers' purchase decisions, we also examine how consumption values influence consumers' word-of-mouth (WOM) behaviors. Second, although the theory of consumption values focuses on consumer choice (between two or more options), the propositions somewhat neglect the 'comparing sense.' In other words, when a consumer faces a choice between a superfood and an alternative food supplement, the decision-making mechanism goes beyond the value perceptions of superfoods and captures the comparison between superfoods and the alternatives (Drugău-Constantin, 2018; Mirica, 2018; 2019). In response to this inquiry about the comparison of alternatives, we conceptualize the 'relative advantages' of the consumption of different foods and explore the mediating effects of these advantages (Ho et al., 2011) in the relationships between consumption value dimensions and consumers' purchase and WOM intentions regarding superfoods. Third, utilizing consumption values to predict consumers' behavioral tendencies neglects the significance of perceived costs in shaping consumers' behaviors. Therefore, drawing on

prospect theory (Kahneman & Tversky, 1979), we explore the moderating role of perceived costs in the relationship between relative advantage and consumers' behavioral intentions.

1.3 The current study

It is evident that there is interplay between theory (in our case, the theory of consumption values) and the empirical world. This research thus takes an abductive approach in combining the advantages of both deduction and induction, with the aim of developing context-embedded knowledge within the specific setting of superfood consumption (Xian & Meng-Lewis, 2018). In line with the research background and objectives outlined above, we draw on a sample of 447 existing superfood consumers, explore how consumption values influence their repurchase and WOM behaviors in relation to superfoods and highlight the significance of relative advantage and perceived cost in food consumption. This research makes important contributions by addressing a fundamental question with regard to the reasons behind increasing popularity of superfood consumption and adds empirical evidence to the emerging research stream on superfoods. By extending the theory of consumption values, this research also identifies nuanced dynamics in the cognitive processes elicited by consumers' consumption values. From a practical perspective, our findings are of benefit to food producers, marketing practitioners and policy makers.

The remaining sections of the paper are structured as follows. In what follows, section 2 contextualizes the research by reviewing the existing literature on superfoods and provides the theoretical background for the current study. Section 3 presents the conceptual framework and outlines our hypotheses, and section 4 explains the methodology and the data collection and analysis processes. Section 5 presents the data analysis and related results, while section 6 discusses the findings, theoretical contributions, and practical implications of the research. The

paper concludes with the limitations related to the study and offers suggestions for future research opportunities.

2. Literature review and theoretical background

2.1 Superfoods in marketing and consumer research

The pursuit of superfoods as a growing social phenomenon has been attracting academic attention in the past decade. However, surprisingly, academic research into superfoods has largely been restricted to the fields of food science, nutrition studies and medical research (Chongtham & Bisht, 2020). Although superfood consumption has been rising in the consumer market, superfood research that takes a marketing or consumer perspective remains scarce (Groeniger et al., 2017; Sikka, 2019). In order to present a clear picture of superfood research in the fields of marketing and consumer research, we conducted a systematic literature review using Web of Science. In doing so, we used the keyword "superfood" paired with "consumer", "customer" and "marketing" as the keyword sets to search in all fields of articles available on Web of Science. The search yielded 38 results in total. After reading the abstracts, non-marketing and -consumer research papers were filtered out, resulting in a final sample of seven articles that investigate superfood from a marketing or consumer research perspective. Table 1 summarizes the publication information, research methods and key findings of those studies.

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Superfood consumption is a lifestyle and can be seen as the management of self-identity and an expression of the relationship between food and body (Sikka, 2019). Consumers' engagement with superfoods is largely influenced by their health and nutrition literacy and concerns (Erler et al., 2020; Lucas et al., 2021). For instance, superfood consumption may be

legitimized as a caring practice for children and relatives, as well as an investment in future health (Erler et al., 2020). Superfood intake has also been found to be strongly related to consumers' socioeconomic status, due to its high price (Erler et al., 2020; Groeniger et al., 2017). Superfood has been used as a contemporary expression of social distinction in higher socioeconomic groups (Erler et al., 2020; Groeniger et al., 2017). From a business perspective, superfood production is in the interests of farmers' welfare and financial benefits, as well as environmental concerns (Erler et al., 2020; Muziri et al., 2021; Sikka 2019). The development and production of superfoods largely relies on consumer demand, preferences and attitudes toward this group of foods (Erler et al., 2020; Lucas et al., 2021; Muziri et al., 2021). In other words, the superfood sector is customer-oriented. However, important inquiries, such as which superfoods are preferred by consumers, what drives consumers' (re)purchase and advocacy of superfoods and how consumers weigh the benefits (e.g., healthy components) and costs (e.g., price) of superfoods remain unexplored (Lucas et al., 2021; Sikka, 2019). To fill such important research gaps in superfood research, we draw upon the theory of consumption values and investigate how consumers' value perceptions of superfoods influence their behavioral responses (i.e., repurchase and positive WOM intentions).

2.2 Theory of consumption values

Consumption values influence consumer decision-making processes and outcomes to different degrees, depending on the situation in which the choice is being made. *Consumption value* is a concept that contains five dimensions: functional value, emotional value, social value, epistemic value and situational value (Sheth et al., 1991). The five consumption values are drawn from consumers' perceptions and jointly influence consumers' purchase decisions (Sheth et al., 1991).

First, *functional value* refers to the perceived utility acquired from a product's capacity for functional, utilitarian or physical performance and is measured using a profile of product attributes (Sheth et al., 1991). For example, price and durability are often the most important factors when consumers make their purchase decisions (Popescu & Ciurlău, 2019; Teubner et al., 2017). In the context of food consumption, food quality is an influential factor in making food choices (Choe & Kim, 2018). With regard to superfood consumption, nutrition is also considered a key attribute that indicates the quality of the food and differentiates superfoods from the alternatives (Gupta & Mishra, 2021). For example, super-adaptogenic (this refers to substances claimed to stabilize physiological processes) Reishi mushrooms can nourish white blood cells and hence improve skin beauty and glow (Wolfe, 2009). Therefore, in this study, we consider the functional value of superfoods as a representation of the nutritional value and health benefits that these foods bestow (Loyer & Knight, 2018; Scrinis, 2013).

Second, *emotional value* is the perception regarding the extent to which a product arouses feelings or affective states, such as a feeling of comfort after a meal. Emotional value is often measured by a profile of the emotions associated with a given product. Pentikäinen et al. (2018) argue that emotions interconnect with eating behavior, in that they can be an antecedent as well as a consequence of eating. Meanwhile, Liu, Jayawardhena, Osburg, Yoganathan and Cartwright (2021) reveals that the positive emotions drawn from consumption facilitates individuals' social sharing (e.g. WOM). We therefore posit that emotional value may have an impact on consumers' superfood consumption and WOM.

Third, *social value* captures consumers' perceived utility from a product's association with one or more specific social groups and is measured using a profile of image choices. Costa et al. (2014) suggest that social value is essential to consumers' food choices. In other words, the social value of food consumption can be reflected in 'you are what you eat' (Vartanian et al., 2007). Superfood consumption carries social value in terms of self-enhancement and the

prestige of presenting a healthy lifestyle among significant others, and such values embedded in superfoods are expected to drive consumers' behavioral responses to those foods (de Regt et al., 2020).

Fourth, *epistemic value* refers to a product's capacity to arouse curiosity, provide novelty or satisfy the desire for knowledge. In food research, epistemic value is perceived when someone tries out new foods. Superfoods are a new trend that is attracting increasing attention from consumers across different segments (MacGregor et al., 2018; Mudry, 2017). Therefore, superfoods could elicit consumers' curiosity and motivate them to discover and experience more while consuming those foods.

Finally, *situational value* highlights the significance of situation or circumstance in consumers' product choices (Sheth et al., 1991). In food consumption, situational value indicates the meaningfulness of food given a specific context (Thomé et al., 2020). For example, low-calorie food usually has a higher situational value when one is on a diet in order to lose weight. Similarly, as the health benefits of superfoods are heavily promoted, the situational value for superfood consumers is more likely to be related to health-conscious or health-related conditions. In our context, the situational value of superfoods is associated with the extent to which consumers are concerned with their health. We therefore expect consumers to perceive a higher situational value in a superfood if they are health conscious at the moment of making a food choice. Higher perceived situational value drives consumers' positive responses.

Based on the discussion above, the theory of consumption values is often used as a theoretical lens to understand consumers' food consumption. Table 2 summarizes previous food research that adopted the theory of consumption values and highlights the research methods, food types and key findings.

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According to Table 2, it is evident that the five consumption values have been fully or partially adopted in assessing a wide range of consumers' food choices, such as halal-certified food (Muhamed et al., 2019), organic food (Kushwah et al., 2019; Muhamed et al., 2019; Qasim et al., 2019) and dairy products (Rahnama & Rajabpour, 2017), often through a quantitative approach. However, findings regarding the impact of the five value dimensions on consumers' consumption vary across contexts. For example, Rahnama (2017) finds that social and emotional values have no impact on consumers' choice of organic yogurt, whereas Rahnama and Rajabpour (2017) find that both social and emotional values motivate consumers to choose dairy products. This suggests that although the theory of consumption values largely predicts consumers' behavioral responses, it is overgeneralized to assume that the impact of value perceptions is universal across contexts (e.g., different food types). Therefore, a context-specific investigation is needed to understand the values driving consumers' superfood consumption (Lin et al., 2020; Qasim et al., 2019).

Moreover, the theory of consumption values has mainly been employed to examine consumers' purchase decisions, although whether the consumers are existing or potential and which phase of the customer journey is captured are often unspecified in the existing studies. Pioneering research points out that the impact of consumption values goes beyond the pre-purchase stage and consumers' one-off purchase decisions and may also shape consumers' repurchase and advocacy behaviors (e.g., WOM) (Dowell et al., 2019; Harris et al., 2020). Repurchase and WOM are particularly important in developing a dietary style (e.g., a superfood diet), as this requires consumers' regular purchase and ongoing support rather than a one-off act of consumption (Inelmen et al., 2008; Phua et al., 2020; Pichierri et al., 2020). Therefore, how consumption values influence existing consumers' repurchase and WOM behaviors beyond a one-off consumption decision is missing from the literature and is worthy of further investigation.

Moreover, existing research on food consumption that employs consumption values theory often adopts a single theoretical lens and has called for more integrative theoretical views to understand the mechanisms by which value perceptions shape consumer behaviors (e.g., identifying mediators and/or moderators) (Rousta & Jamshidi, 2020; Shin et al., 2020). Identifying the processing mechanism of value perceptions also contributes to the advancement of consumption values theory. Further, following a review of the theory of consumption values, although the theory focuses on consumers' choices, the original propositions fail to explain how a choice is made when consumers face various alternatives (Stankevich, 2017). More precisely, according to the theory, the five consumption values of a product/service predict consumers' purchase choice decisions (e.g., the intention to purchase that particular product/service). However, when a consumer faces various alternatives, the consumer's choice is not informed by the value perceptions of only one of the alternatives (Lang & Conroy, 2021; Turel et al., 2010). In other words, when a consumer is confronted with a choice between products A and B, the high values perceived in product A do not necessarily mean that the consumer will choose product A over B, because the choice will only be made when both product A and product B are considered. Value perceptions of different choices are independent of each other. Therefore, it is an overgeneralization to assume that the consumer will make a choice based on the value perceptions of only one alternative (e.g., product A). In consumer behavior theories (e.g., Engel et al., 1978; Hansen, 1972), consumer choice is based on a comparison and evaluation of alternatives, especially in a competitive consumer market. Such comparisons and evaluations are not, however, captured by the theory of consumption values.

Therefore, in order to fill the research gaps identified in the food consumption research and push the boundaries of consumption values theory, we conceptualize 'relative advantages' in food consumption to capture the importance of the evaluation of alternatives and highlight the buffering effects of perceived costs. We do this by drawing upon prospect theory, thereby

advancing understanding of how consumption values influence consumers' superfood repurchase and WOM behaviors.

3. Conceptual model and hypotheses development

Based on the literature review and theoretical background presented above, the rationale for our conceptual model is generalized (see Fig. 1) in part from the theory of consumption values (Sheth et al., 1991) and prospect theory (Kahneman & Tversky, 1979). In what follows, we provide details of the theoretical foundations and constructs under consideration in this study and the rationale behind the linkages between the individual concepts.

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3.1 Conceptualization of relative advantages

Wierenga's (1983) fundamental work on consumer food choice highlights that consumers tend to compare and evaluate all the alternatives in order to inform their food choice. In the modern consumer market, the increasing range of dietary styles and habits makes consumers' food choices more difficult than ever (Fifita et al., 2020; Salnikova & Grunert, 2020). The literature also suggests that the unique benefits of a food product/dietary style are the driver of consumer choice when considering all the alternatives. We conceptualize relative advantages in order to capture this sense of comparison between different food alternatives and to understand the motivating mechanism in superfood consumption.

The concept of relative advantage was initially developed and used in innovation research to illuminate consumers' innovation adoption choice by comparing the features of an innovation with its precursors (Moore & Benbasat, 1991; Rogers, 2003). Consumers are more likely to adopt a new technology if it is perceived to have relative advantages over the existing technologies (Banerjee et al., 2016; Choudhury & Karahanna, 2008; Graessley et al., 2019). In

recent years, consumer demand and changing lifestyles have triggered rapid changes in the food industry. New and innovative concepts, such as 'vegan,' 'free-from' and 'all-raw,' have been proposed to attract consumers' attention (Graeff-Hönninger & Khajehei, 2019). Consumers compare the various alternatives and seek unique benefits when making food and dietary choices, which is similar to the manifestation of relative advantage in innovation adoption. The evaluation of alternatives was particularly observed in consumers' adoption of innovative and unconventional food products/dietary styles (Choo et al., 2004). More precisely, the concept of relative advantage/benefit is found to be an important consideration when consumers are confronted with a wide range of food choices, such as cloned meats (Gaskell et al., 2007), genetically modified foods (Kontoleon & Yabe, 2003), insect-based foods (House, 2016), organic foods (Mkhize & Ellis, 2020), soy-based foods (Ottenfeld et al., 2008) and whole-grain products (Ross et al., 2015). However, surprisingly, although relative advantages are believed to be the key driver of consumers' food choices, none of those studies capture relative advantage in their empirical examination.

Based on a conceptualization drawn from innovation literature and contextualization from food research, perceived relative advantages in food consumption refers to the degree to which a food product/dietary style is perceived as being superior to the alternatives. In this research, the relative advantages of superfoods imply the extent to which superfoods are believed to be better than the other options. In innovation research, relative advantage may manifest in different forms, such as convenience, prestige and effectiveness (Jamshidi & Kazemi, 2019; Song et al., 2013). In the context of food consumption, our operationalization of relative advantage focuses on the functionalities of superfoods (i.e., what makes these foods stand out), including their uniqueness, superiority and potential to supplement a health regime based on a comparison between a particular food product/dietary style and the alternatives (Leckie et al., 2018; Meuter et al., 2005; Müller-Stewens et al., 2017). This approach to

operationalization differentiates the relative advantages of superfoods from value perceptions: the former focus on positive perceptions of superfoods drawn from comparisons to the alternatives, and the latter emphasize the absolute value of superfoods, regardless of any alternatives. The next section explains the associations between relative advantages and value perceptions.

3.2 Consumption values and relative advantages

In terms of a consumer's cognitive process, relative advantage is a calculative concept based on perceptions of each of the alternatives available, and the value perceptions of each alternative lay a foundation for the comparison and evaluation of all the alternatives (Stankevich, 2017). Therefore, when a consumption choice is perceived to have a high degree of value, it is more likely to stand out when compared to the alternatives. In other words, in the case of superfoods, the higher the value of superfoods perceived by a consumer, the more competitive superfoods will be in the consumer's evaluation of alternatives, and the greater the relative advantages of superfoods are likely to be (House, 2016; Mkhize & Ellis, 2020; Ross et al., 2015). Given that relative advantages capture the comparative benefits of superfoods in relation to the alternatives, the value perceptions of superfoods contribute to developing the relative advantages of superfoods.

More precisely, in terms of functional value, the quality, nutrition and taste of superfoods (e.g., naturalness and healthiness, organicity and being additive-free) (Choe & Kim, 2018) may be perceived as better than other choices. In terms of emotional value, superfoods help arouse the feeling of being positive through their association with the effects the consumer being better off compared with the benefits of other substitutes (Dagevos & Ophem, 2013). Similarly, a higher social value may be attached to superfoods, such as a sense of greater prestige and posing a trendier and healthier lifestyle, compared to alternative food choices (de

Regt et al., 2020). The existing literature also indicates that superfoods are often related to ancient or indigenous cultures (e.g., Chinese goji and Andean maca), and that such exoticness and mystery increase their epistemic value and allow superfoods to stand out among the alternative choices (Loyer & Knight, 2018). Moreover, as superfoods are often believed to be nutritious and to offer health benefits, consumers may perceive superfoods as being superior depending on their health-associated choice conditions (Šamec et al., 2019).

Based on the above discussion, when consumers perceive higher consumption values (i.e., functional, emotional, social, epistemic and situational) in superfoods, superfoods are more likely to be considered superior to the alternatives. Thus, we hypothesize:

H1a-e: a) Functional value, b) Emotional value, c) Social value, d) Epistemic value, e) Situational value positively relates to the relative advantages of superfoods.

3.3 Relative advantages and repurchase and WOM intentions

The literature relating to innovation research suggests positive relationships between perceived relative advantages and consumers' behavioral intentions (e.g., Amaro & Duarte, 2015; Kamarulzaman, 2007; Lu et al., 2011; Moital et al., 2009). More precisely, the impact of relative advantages on consumers' behavioral responses can be divided into purchase-related behaviors and recommendation-related behaviors (i.e., WOM). In this research, we focus on existing superfood consumers. Therefore, we emphasize the consumers' most significant post-purchase behavioral responses: repurchase and WOM intentions.

First, innovation literature has examined the impact of relative advantage on consumers' purchase decisions across different contexts, such as learning technologies (Agudo-Peregrina et al., 2014), commerce technologies (Agarwal & Karim, 2015) and mobile entertainment technologies (Leong et al., 2013), and concluded a positive association between relative

advantage and (re)purchase intention. In terms of food consumption, as mentioned earlier, relative advantages are a key indicator in informing consumers' purchase decisions. For instance, Ottenfeld et al. (2008) suggest the relative advantages of tofu drive consumers' consumption of soy-based foods. Similarly, House (2016) suggests that informing customers of the relative benefits of insect-based foods may induce consumption. The increased demand for whole-grain products is driven by the relative advantages that consumers perceive in whole grains (Ross et al., 2015). Mkhize and Ellis (2020) maintain that the relative advantages perceived by consumers will facilitate the diffusion of organic foods. Therefore, consumers who perceive superfoods as possessing greater relative advantages are more likely to repurchase.

Second, few studies have examined the relationship between relative advantage and WOM (i.e., recommendation). However, pioneering scholars suggest that, in addition to the consumption decision, relative advantages have a positive influence on consumers' loyalty and recommendation behaviors in technology/innovation-related consumption (Handayani & Arifin, 2017; Hollowell et al., 2019). In the light of these findings, we anticipate a positive relationship between relative advantages and consumers' WOM intention regarding superfood consumption for theoretical consideration. Mende et al. (2015) suggest that relative advantages in general are a better predictor of WOM compared to satisfaction because WOM is a social behavior that goes beyond experience-sharing and carries additional social meanings (e.g., self-promotion and self-enhancement). When consumers believe a food product/dietary style to be superior to its alternatives, they are more likely to recommend it to others. The food consumption literature also suggests consumers use food-related WOM to send social signals (Atwal et al., 2019; Taheri et al., 2021). Thus, we posit the following:

H2: Relative advantages positively relate to consumers' intention to repurchase superfoods.

H3: Relative advantages positively relate to consumers' word-of-mouth intention regarding superfoods.

3.4 Mediating role of relative advantages

As mentioned previously, a gap revealed in the theory of consumption values is that the original propositions fail to recognize the influence of other options and do not capture the comparison and evaluation of alternatives in the cognitive process involved in consumers' decision making (Drugău-Constantin, 2019). In this study, our conceptualization of perceived relative advantages addresses this gap by capturing the comparative benefits of superfoods compared to the alternatives and how these inform consumers' repurchase and WOM behaviors. Research has identified direct positive effects of consumption values on (re)purchase and WOM behaviors (e.g., Alsulaiman et al., 2015; Dowell et al., 2019; Lin et al., 2020). We argue that relative advantages play an indispensable role in connecting the impact of value perceptions to consumers' behavioral responses (i.e., repurchase and WOM intentions). This is because the high consumption values perceived in superfoods may not be effective in predicting consumers' repurchase and WOM intentions, since alternative dietary styles may carry even higher value perceptions. In this case, consumers are less likely to repurchase and recommend superfoods, even if they perceive high consumption values. However, when higher consumption values of superfoods are perceived by consumers, superfoods are more likely to gain relative advantages in the consumers' evaluation of alternatives. Relative advantages indicate the superiority of superfoods to other alternatives and can, therefore, better predict consumers' repurchase and WOM intentions (Arts et al., 2011; Mende et al., 2015). Thus, we hypothesize,

H4a-e: Relative advantages mediate the relationship between a) functional value, b) emotional value, c) social value, d) epistemic value, e) situational value and intention to repurchase superfoods.

H5a-e: Relative advantages mediate the relationship between a) functional value, b) emotional value, c) social value, d) epistemic value, e) situational value and word-of-mouth intention regarding superfoods.

3.5 Moderating role of perceived costs

In this study, relative advantage focuses on the functionality of superfoods (i.e., the extent to which superfoods can achieve what other alternatives cannot) and can largely be used to predict consumers' behaviors, including repurchasing and WOM. However, Thaler (1980) highlights that consumers' behaviors are not driven purely by the perceived relative advantages of a product, but are also shaped by the costs incurred. Therefore, to further understand the cognitive mechanism of consumers' superfood consumption and WOM that is elicited by consumption values and mediated by relative advantages, we also emphasize the significance of perceived cost in shaping consumers' behaviors.

Unlike perceptions of relative advantages that are informed by consumption values and focus on the functionality of superfoods, perceived costs consider affordability and accessibility. Perceived costs are also often discussed in exploratory research on food consumption, but few researchers have empirically examined perceived costs using an explanatory approach. Building on consumer behavior research that emphasizes costs (e.g., de Ruyter et al., 1998; Jones et al., 2000), in this study, perceived costs refer to the general sacrifices incurred by consuming (more) superfoods, such as time, money and effort (El-Manstrly, 2016; Jones et al., 2000; Jones et al., 2007). Powell et al. (2010) argue that perceived costs are a major barrier when consumers consider switching from unhealthful food to healthful

food. Berners-Lee et al. (2012) argue that, together with the potential benefits, consumers also consider the costs when making dietary choices. Therefore, it is important to consider the dynamics between relative benefits and costs in influencing consumer behaviors.

According to prospect theory, decision makers weigh both 'gains' and 'losses' and assess the value of prospects in order to make their choices (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991). The central proposition of prospect theory in behavioral research emphasizes that behavioral intentions are the result of a comprehensive evaluation of the benefits and costs of a target behavior (Chiu et al., 2014; Chung & Koo, 2015). In the superfood consumption context, from the perspective of prospect theory, consumers develop behavioral intentions (i.e., repurchase and WOM), based not only on their perceived 'gains' (i.e., relative advantages; that is, the benefits provided by superfoods compared to alternatives), but also their potential 'losses' (i.e., the costs in relation to the time, money and effort required for superfood consumption). Research employing prospect theory suggests that the trade-off between 'gains' and 'losses' informs consumers' behaviors, whereas relative advantages and perceived costs need to be considered as acting in an interactive manner (Chiu et al., 2014; Wong et al., 2021).

We anticipated that perceived costs moderate (weaken) a positive relationship between relative advantages and consumers' repurchase and WOM intentions in relation to superfoods. The rationales for such moderating effects are different for repurchasing and WOM behaviors. More precisely, perceived costs mitigate the positive effects of relative advantages on consumers' repurchase intention regarding superfoods. This is because consumers are considered rational decision makers – consumers weigh the benefits and costs of consumption and are less likely to purchase superfoods when there are higher costs (e.g., money, time and effort) associated with the consumption decision (Csikszentmihalyi, 2000; Thaler, 1980). In other words, perceived costs counteract the relative advantages perceived in superfoods.

Furthermore, we argue that there are two reasons for negative moderating effects of perceived costs on the association between relative advantages and WOM intention. First, consumers' WOM recommendation of a product is driven by its comparative advantages but is subject to the affordability and accessibility of the product (Chang et al., 2016; Mende et al., 2015). In other words, if superfoods are less affordable and accessible (i.e., there are higher costs involved in consumption) to consumers, they are less likely to recommend superfoods, even if they recognize the relative advantages of those foods. Second, research points out that consumers use superfood consumption to create social distinction and signal social identity (Groeniger et al., 2017; Sikka, 2019). In comparison, WOM carries social meaning as an interpersonal social behavior (Berger, 2014). As mentioned previously, consumers are less likely to purchase superfoods if higher costs are perceived to be involved. In this case, consumers recommending superfoods that they themselves are less willing to buy would widen the social gaps between the consumer and other people and lead to the separation of social groups. Consumers seek a sense of belonging and a shared identity within social groups through their WOM behaviors (Abrantes et al., 2013; Chu et al., 2019). Therefore, relative advantages are less likely to drive consumers' WOM intention when consumers perceive high costs in superfoods. Based on the argument above, we hypothesize:

H6: Perceived costs negatively moderate the impact of relative advantages on repurchase intention; specifically, when perceived costs are higher (lower), relative advantages have a weaker (stronger) positive relationship with repurchase intention.

H7: Perceived costs negatively moderate the impact of relative advantages on repurchase intention; specifically, when perceived costs are higher (lower), relative advantages have a weaker (stronger) positive relationship with word-of-mouth intention.

4. Method

4.1 Sample and data collection

Consistent with the method adopted by most research that employs the theory of consumption values (see Table 2), we collected data for this study using a self-administered online survey. We ascertained the content validity of the survey measures by incorporating suggestions from three UK university professors of marketing with experience of food research (Dhir et al., 2019). To ensure face validity, we used a convenience sampling approach to conduct a pilot study with 15 existing superfood consumers. We invited the participants to complete the survey and make a note of potential issues or suggestions for improving the understandability and readability of the instrument. Participants were then invited to join online focus groups to provide feedback (Liu, Liu, Yoganathan & Osburg, 2021). Based on the feedback, we made minor changes and finalized the survey used for the main data collection.

For the main data collection, we recruited UK-based participants from an online panel. The study used two screening conditions for respondents to participate in the data collection process: i) must be 18 years old or above, and ii) must have consumption experience of superfoods. We focus on existing superfood customers because, as superfoods become more popular, recent reports show that a large proportion of consumers believe that they have consumed superfoods (Danley, 2019). Developing a dietary style also requires existing consumers to make regular purchases (Phua et al., 2020; Pichierri et al., 2020). To ensure the validity of the responses, we inserted three attention-checking questions in the middle of the scales (e.g., please select neither agree nor disagree; Liu et al., 2020). Sixteen responses that failed one or more attention-checking questions were filtered out from the sample. A total of 579 respondents attempted to take part in the survey. Of those, 52 were screened out because they had no superfood consumption experience, resulting in a 91% penetration rate for superfoods. After further eliminating incomplete and invalid responses, the final sample

consisted of 447 replies from existing consumers of superfoods. The demographic statistics of the respondents in the final sample are summarized in Table 3. Furthermore, we asked the participants to state all the superfoods they believed they had consumed. We then developed a word cloud to capture the superfoods that were often referred to by the consumers (i.e., superfoods that were mentioned more than three times by the participants) (Rossolatos, 2019). As illustrated in Fig. 2, avocados, blueberries, chia seeds, quinoa and goji berries were the superfoods most frequently purchased by the participants.

--- Insert Table 3 ---

--- Insert Fig. 2 ---

4.2. Measures

The measurements of the constructs in this study were adapted from previous research. All items used a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Table 4 provides further description and information regarding each construct and its related items. The results in Table 4 show that the Cronbach's alpha (**α)** is above .70 for each construct (ranging from .818 to .934), ensuring a high degree of reliability (Bollen & Lennox, 1991; Sarantakos, 2013). Standardized factor loading estimates for all the variables are statistically significant at $p < .001$ and range from .654 to .909, which exceeds the minimum criterion of .50 (Fornell & Larcker, 1981; Hair et al., 2013). In addition, the intraclass correlations for all constructs yielded acceptable values (i.e., $p < .001$).

--- Insert Table 4 ---

5. Data analysis and results

The conceptual model and proposed hypotheses were tested using structural equation modeling in AMOS 26.0. First, we carried out preliminary assessments to determine the plausible context

of the distribution and to understand the appropriateness of the data for multivariate analysis. Second, we assessed the measurement model to determine the reliability and validity of the theoretical constructs. Third, we examined the bias generated by common method variance (CMV). Fourth, the structural model was measured by estimating the significance of the causal relationships among the constructs. Results from each analysis are presented below.

5.1 Preliminary analysis

Prior to estimating any models, we first assessed the normality of the distribution curves. The data exhibited problems, with skewness values ranging from -5.95 to 2.21, which fell short of the acceptable level of |2|, whereas kurtosis values ranging from -3.17 to 3.14 were well below the cut-off value of |7| (West et al., 1995). The results indicate that some variables violated the normality assumption of the dataset. We also assessed multivariate normality using Mardia's coefficient of multivariate kurtosis, which indicated that the dataset was multivariate non-normal (Cho et al., 2013; Henson, 1999). To fix the problem of the data being multivariate non-normal, we performed a Bollen–Stine bootstrap (n = 2,000 at a 95% bias-corrected confidence interval [CI]) to achieve stronger accuracy in the confidence intervals (Nevitt & Hancock, 2001; Schumacker et al., 2015). Second, a Levene (1960) test suggested that there was an assumption of equal variances in the study. Third, Table 4 shows variance inflation factor (VIF) results indicating no evidence of a multicollinearity issue, as the VIF values are between 1.383 and 3.379 and are below the cut-off point of 4.0, and tolerances are more than 0.10, ranging from 0.30 to 0.76 (Pallant, 2016). Moreover, all correlations between variables are much lower than the cut-off point of 0.80, suggesting no issues with multicollinearity (Bagozzi et al., 1991). Finally, we assessed potential non-response bias by comparing early and late respondents (Armstrong & Overton, 1977; Wang et al., 2016). Using a response time of 7 days as the cut-off point, we split the participants into early (< 7 days) and late (≥ 7 days) respondents.

Independent sample t-test results showed insignificant differences (at a 99% CI) between the two groups, which confirmed that non-response bias does not appear to be an issue in this study.

5.2 Measurement model analysis

We assessed the unidimensionality of the latent variables using confirmatory factor analysis (CFA). The results show the following values: x^2/df = 2.194; standardized root mean square residual (SRMR) = 0.049; root mean square error of approximation (RMSEA) = 0.052 with a PCLOSE of 0.229; comparative fit index (CFI) = 0.944; Tucker–Lewis Index (TLI) = 0.937; and incremental fit indices (IFI) = 0.944; thus meeting the requirements of the cut-off values (Bagozzi & Yi, 1988; Brown, 2006; Hair et al., 2013). We also measured the convergent and discriminant validity of the constructs. Convergent validity of the constructs was assessed using composite reliability (CR) and average variance extracted (AVE) values (Fornell & Larcker, 1981; Hair et al., 2013). Table 5 illustrates that the CR values range from .815 to .935, which satisfies the cut-off value of .70, ensuring construct reliability. Furthermore, the AVE values exceed the suggested standard of .50, which ultimately confirms the necessary reliability and convergent validity.

We used three different criteria to assess discriminant validity. As suggested by Fornell and Larcker (1981), we used AVE and maximum shared variance (MSV) to measure discriminant validity. Table 5 demonstrates that: a) the square root of the AVE for each construct (highlighted in bold on the diagonal) is higher than the correlation between any pair of distinct constructs; and b) MSV is smaller than AVE for all the factors, providing evidence of discriminant validity. We also used the heterotrait–monotrait ratio of correlation suggested by Henseler et al. (2015). The results in Table 6 suggest that the ratios for all the constructs are below the threshold of .85 and thus confirm that the constructs are discrete from each other.

--- Insert Table 5 ---

--- Insert Table 6 ---

5.3 Common method bias

We used two methods to check for common method bias (CMB). First, we used Harman's single factor test to assess the CMB in our dataset (Podsakoff & Organ, 1986). With all indicators entered, the first factor explains 42.11% of the variance, indicating that no substantial CMB exists. Second, we used a robust CFA marker variable technique (Malhotra et al., 2017), following Williams et al.'s recommendation (2010) for measuring CMB. Four different models were used to assess the influence of CMV. Table 7 illustrates the results related to the model comparisons. A comparison between the baseline model and constrained model (Method-C model) resulted in an insignificant chi-square difference of $\Delta x^2 = 0.76$ at $\Delta df = 1$, $p > .05$, which indicates that the dataset is not affected by CMV. Next, a model comparison between the unconstrained model (Method-U) and constrained model (Method-C) shows a significant chi-square difference of $\Delta x^2 = 139.7$ at $\Delta df = 35$, $p < .001$, indicating CMV is not a concern, as CMV does not affect all substantive contracts equally (Malhotra et al., 2017). Finally, to assess whether the correlations are significantly biased by marker variable method effects, we undertook a comparison of Method-U and the restricted model (Method-R). The chi-square difference test resulted in a non-significant difference of $\Delta x^2 = 7.17$ at $\Delta df = 36$, $p > .05$, which indicates that the presence of CMV does not skew the relationships between the substantive variables (Shuck et al., 2017). Thus, the above analyses indicate that CMV does not pose any risk or concerns for the results of this study.

--- Insert Table 7 ---

5.4 Structural model analysis

After the estimation of adequate measurement model fit and related validity and reliability, we assessed the structural equation model. The results show that x^2/df = 3.311, SRMR = 0.006, and RMSEA = 0.072 with a PCLOSE of 0.144, which meet the requirements of adequate fit of the structural model. In addition, the incremental fit measures illustrate good model fit by exceeding the cut-off value of 0.90, where CFI = 0.997, TLI = 0.973 and IFI = 0.997. Hence, with evidence of good model fit, the study progressed to test the proposed hypotheses.

Figure 3 and Table 8 show that H1a-e predict the relationships between consumption values and the relative advantages of considering superfoods. Functional value (**β**H1a = .352, t-value = 10.072, p < .001), emotional value (**β**H1b = .276, t-value = 6.717, p < .001), social value (**β**H1c = .145, t-value = 4.313, p < .001), and situational value (**β**H1e = .210, t-value = 4.433, p < .001) show positive significant relationships with relative advantages, indicating that H1a, H1b, H1c, and H1e are supported. However, epistemic value has no significant relationship with relative advantages (**β**H1d = .013, t-value = 0.285, p = .775), indicating that H1d is not supported. The results demonstrate that although four of the consumption values (i.e., functional, emotional, social and situational) have influential roles in creating positive consumer perceptions regarding the relative advantages of consuming superfoods, epistemic value does not play any statistically significant part in developing perceptions of relative advantages.

Similarly, H2 and H3 predict relationships between consumers' perceived relative advantages of consuming superfoods and their behavioral intentions. The results illustrate that relative advantages have a significant and positive influence on both consumers' repurchase intention (**β**H2 = .571, t-value = 7.773, p < .001) and word-of-mouth intention (**β**H3 = .391, t-value = 14.538, p < .001), suggesting that H2 and H3 are supported.

Table 8 illustrates the moderating effect of perceived costs on the relationships between relative advantages and repurchase intention (H6) and WOM intention (H7). With regard to H6, the results show that perceived costs have a significant negative moderating effect on the relationship between relative advantages and repurchase intention (**β**H6 = -0.053, t-value = -3.118, p = .002), which supports hypothesis 6. The results also show that perceived costs have no significant moderating effect on the relationship between relative advantages and WOM intention (**β**H7 = -0.010, t-value = -0.596, p = .551), indicating that hypothesis 7 is not supported. Figure 3 and Table 8 show the results of the regression coefficients, squared multiple correlations (R^2), t-values and related p-values for the proposed hypotheses.

--- Insert Fig. 3 ---

--- Insert Table 8 ---

Finally, the mediation effects between all the consumption value variables for superfoods and the behavioral intention variables through relative advantages were found to be significant, apart from epistemic value (see Table 9). The mediation effect of relative advantages on the relationship between consumption values and repurchase intention was significant for functional value (**β**H4a = .175, 95% CI [.072, .319], p = .002), emotional value (**β**H4b = .196, 95% CI [.120, .297], p = .002), social value (**β**H4c = .058, 95% CI [.031, .103], p = .001), and situational value (**β**H4e = .140, 95% CI [.059, .269], p = .003). Thus, H4a, H4b, H4c and H4e are supported. Similarly, the mediation effect on WOM intention mediated by relative advantages was significant for functional value (**β**H5a = .343, 95% CI [.259, .460], p = .001]), emotional value (**β**H5b = .147, 95% CI [.086, .251], p = .001), social value (**β**H5c = .066, 95% CI [.036, .100], p = .001), and situational value (**β**H5e = .146, 95% CI [.064, .241], p = .003). Thus, H5a, H5b, H5c, and H5e are also supported. As the mediation effects between

epistemic value, repurchase intention and WOM intention through relative advantages are not statistically significant, the associated H4d and H5d are not supported.

--- Insert Table 9 ---

6. Discussion and implications

6.1 General discussion

This study elucidates how perceived relative advantages of superfoods are developed based on value perceptions and influence their behavioral responses, as well as illustrates the cognitive mechanisms of consumers' repurchase and WOM intentions by highlighting the trade-off effects between the relative advantages and perceived costs of superfoods. More precisely, drawing upon the theory of consumption values, this study highlights the significance of functional, emotional, social and situational values in relation to the way relative advantages of superfoods develop in consumers' minds. The relative advantages that consumers perceive from superfoods have a positive influence on their repurchase and positive WOM intentions. In referring to prospect theory, this study illustrates the trade-off effects between the relative advantages and perceived costs associated with superfoods in influencing consumers' future purchases, with the positive impact of relative advantages on consumers' WOM independent of their perceived costs. The following discussion details the rationale and explanations indicated by the findings.

First, in examining the relationships between value perceptions and relative advantages (H1a-e), our findings suggest that the functional (H1a), emotional (H1b), social (H1c) and situational (H1e) value of superfoods contribute to the relative advantages that consumers perceive regarding these foods. This indicates that when choosing superfoods from among alternatives, consumers' evaluations are based on multidimensional value perceptions of superfoods (Lucas et al., 2021). Consumption values play a significant role in food

consumption (Kushwah et al., 2019). More precisely, the naturalness and healthiness of superfoods often imply a better taste and higher quality compared to other, non-super/ "inferior" alternatives (Rahnama, 2017). Functional value therefore positively influences the relative advantages of superfoods. Similarly, in line with the existing food literature, a healthy and natural diet brings emotional benefits to consumers (Janssen, 2018). The emotional value drawn from superfoods also, therefore, contributes to the relative advantages of those foods. As food habits become part of subculture and social trends, product evaluations and purchase decisions in food consumption also consider the social value of food (Emonstspool & Georgi, 2017). When superfoods are regarded as a superior choice of food, they allow consumers to develop a sense of prestige and self-enhancement through their purchase and consumption (Sikka, 2019). Such effects are particularly highlighted when social media is in use (MacGregor et al., 2018). Our finding also indicates that situational value influences consumers' recognition of the relative advantages of superfoods (Qasim et al., 2019). Instead of focusing solely on the product, situational value captures the dynamics between the consumer and the product (Sheth et al., 1991). This value perception is context-specific, with those who believe that superfoods offer more benefits to their health being more likely to perceive a higher relative advantage associated with superfoods (Thomé et al., 2020). Our finding also indicates that, of the five dimensions of value perception, epistemic value (H1d) does not have a significant impact on perceived relative advantage. There are two potential explanations for this. First, as shown in Fig. 2, consumers' understanding of superfoods focuses on foods that are commonly believed to be nutritional, such as avocados and blueberries, rather than on rare and novel ingredients that would normally arouse consumers' curiosity (Dagevos & Ophem, 2013). Therefore, epistemic value does not influence consumers' evaluation of the relative advantages of superfoods. Second, we sampled consumers with previous consumption experience of

superfoods. It is, therefore, possible that with actual consumption experience, the mystery and novelty associated with superfoods are mitigated (Choe & Hong, 2018).

Second, this research identifies the significant role of relative advantage in food consumption, the findings suggesting that the relative advantages of superfoods determine consumers' future purchases (H2) as well as their positive WOM behavior (H3). Relative advantage is developed by means of comparison and plays a key role in the cognitive mechanism of translating value perceptions of superfoods into related behaviors (Gaskell et al., 2007; House, 2016). The higher the value consumers perceive from superfoods, the more competitive superfoods become when they are compared to other alternative foods, thereby resulting in higher relative advantages of superfoods (Mkhize & Ellis, 2020; Ross et al., 2015). Here, relative advantage plays the determining role in consumers' purchase decision (Ferreira et al., 2014). Similarly, WOM could be an outcome of having considered relative advantages because consumers especially tend to give recommendations in the post-purchase phase (Liu et al., 2020; Zhang et al., 2019). In addition, our findings emphasize that relative advantages mediate the relationships between functional, emotional, social and situational value perceptions of superfoods and consumers' repurchase and WOM intentions. This suggests that, as the central value perceptions drawn from superfoods, functional, emotional, social and situational values inform consumers' repurchase (H4a, b, c, e) and WOM behaviors (H5a, b, c, e) through a cognitive comparing mechanism of relative advantage evaluation. H4d and H5d are not significant due to the rejection of H1d. Although previous research suggests that various consumption values may independently influence repurchase and WOM behavior relationships (e.g., Agarwal & Karim, 2015; Handayani & Arifin, 2017; Kaur et al., 2020), our findings echo pioneering research (e.g., Arts et al., 2011; Mende et al., 2015) in emphasizing that value perceptions more effectively shape consumers' behavioral responses through helping to form a judgment on relative advantages. This is because, on the one hand, superfoods being

recognized as superior to the alternatives (i.e., perceived as having high relative advantage) results in consumers' greater willingness to buy them (Mkhize & Ellis, 2020). On the other, when considering the advantages of superfoods, consumers are more likely to recommend them to others in order to promote themselves socially (Atwal et al., 2019; Taheri et al., 2021).

Third, our findings suggest that the perceived costs of superfoods mitigate the positive relationship between relative advantages and consumers' repurchase intention (H6), and that WOM (H7) is not influenced by perceived costs. Prospect theory suggests that if consumers are rationale decision makers, their purchase decisions are informed by the trade-off between the benefits and costs associated with consumption (Kahneman & Tversky, 1979). In this study, the findings imply that higher relative advantages developed from superfoods may not guarantee future purchases if the costs associated with superfoods are also high (Berners-Lee et al., 2012; Wong et al., 2021). Such costs could relate to money, time or the effort needed to acquire superfoods (Csikszentmihalyi, 2000). Perceived costs do not significantly influence the relationship between relative advantages and consumers' WOM intention. This suggests that, unlike purchase decisions, high costs would not stop consumers sharing positive WOM if they perceived higher levels of the relative advantages of superfoods (Rezaei & Ho, 2021). Although the literature suggests that consumers' WOM may be subject to their cost-related concerns (e.g., affordability and accessibility; Chang et al., 2016; Mende et al., 2015), our finding highlights that consumers' WOM recommendations largely rely on their perceptions of relative advantages and are independent of perceived costs. In sum, when the perceived costs of superfoods are high, even given the existence of relative advantages, consumers are less likely to buy more superfoods but would still share positive WOM about them.

6.2 Theoretical contributions

This study makes several important theoretical contributions. First, by recognizing the ever-occurring new dietary styles and food consumption trends in the consumer market, this study breaks new ground by introducing and examining the concept of relative advantage in food consumption. Going beyond an innovation context, the new conceptualization of relative advantage in food consumption presents a rationale for seeking an answer to a fundamental question in modern food research – why is a consumer eager to embrace a particular dietary style and/or food consumption trend over the alternatives (Moore & Benbasat, 1991; Rogers, 2003)? Our approach pushes the boundaries of prior food consumption research that conceptually recognized the existence of relative advantage/benefit in consumer evaluation and responds to calls to further examine and develop the concept (House, 2016; Mkhize & Ellis, 2020). As one of the first empirical studies to contribute to the area of superfood consumption in the fields of marketing and consumer research, our research adds important first-hand empirical evidence to the emerging research stream of superfoods and addresses the fundamental inquiry regarding drivers of consumers' superfood consumption and advocacy (Muziri et al., 2021; Sikka, 2019).

Second, our study makes an important contribution by extending the theory of consumption values and highlighting the significance of relative advantage in the cognitive mechanism of translating perceived values into product choices (Peng et al., 2019; Sheth et al., 1991). The theory of consumption values explains 'why consumers make the choices they do' and proposes that a consumer's choice of a product results from five value perceptions of that product (i.e., functional, emotional, social, epistemic and situational). However, although the theory implies that the choice is informed by comparisons between various alternatives, the sense of comparing was not captured in the original theoretical propositions (Sheth et al., 1991; Stankevich, 2017). By highlighting the significance of relative advantage, we argue that instead

of directly influencing consumers' choices, value perceptions contribute to developing a product's relative advantages in relation to alternatives. Based on an evaluation of the alternatives, consumers not only choose to purchase the product with the highest relative advantage, but are also keen to speak positively about the product (e.g., WOM) (Mkhize & Ellis, 2020). Highlighting relative advantage in the theory of consumption values more accurately reflects the consumer decision-making process and addresses the neglect of the sense of comparison in the theory (Engel et al., 1978). In addition, echoing prior research into the significance of value-based advantages (e.g., Balatska & Grosul, 2021; La & Kandampully, 2004), our research reveals that the development of value-based relative advantages could be product-specific. In the case of superfoods, a sense of relative advantages is developed based on consumers' recognition of the functional, emotional, social and situational value of those foods. This pushes the boundaries of a 'one-size-fits-all' theorization of value perceptions and recognizes the importance of considering potential boundary conditions of value perceptions (e.g., product-specific, consumer-specific and context-specific conditions) (Wiedmann et al., 2014).

Third, in drawing upon prospect theory, this study identifies the important trade-off effects between the 'gains' and 'losses' drawn from superfoods in influencing consumers' purchase and WOM behaviors (Kahneman & Tversky, 1979; Liu et al., 2019). Our research contributes to the consumer decision-making research (Luce et al., 2001; Ravoniarison, 2017) in revealing that, in addition to value-based relative advantages, consumers, as rational decision makers, take perceived costs into consideration. Perceived costs mitigate the impact of relative advantages on consumers' repurchase of superfood, but not on their WOM behaviors. Such nuanced differences in shaping consumers' post-purchase behaviors are particularly important for product categories whose promotion often relies on WOM marketing (e.g., the food sector) (Pandey & Khare, 2017). In addition, by integrating prospect theory into the theory of

consumption values, this study responds to calls for theoretical advancement of the theory of consumption values (e.g., Rousta & Jamshidi, 2020; Shin et al., 2020) and provides a more comprehensive interpretation of the cognitive mechanisms of consumer behaviors in food consumption.

6.3 Practical implications

This research also has profound implications for practice, especially in helping marketing practitioners develop effective promotion strategies and persuasion messages for food products that are believed to be 'super.' Here, the most essential principle in food marketing is that marketing practitioners should not 'fool' consumers by exaggerating the potential benefits of a product, or by undertaking promotion in any misleading way that is beyond what is legitimate (Curll et al., 2016). Therefore, it is worth noting that our suggestions can only be used to improve the effectiveness of marketing activities for lawful food businesses and those superfoods whose properties are supported by scientific evidence. Above all, in line with European Union (EU) policy, businesses should not market their products as 'super' unless they have scientific proof of their benefits (Valentine, 2016). From the marketing perspective, our recommendations for marketing superfoods are threefold: highlight values, enhance relative advantages and reduce perceived costs.

First, our findings highlight that functional value, emotional value, social value and situational value are key drivers of the relative advantages of superfoods. In order to improve perceptions of the relative advantages of superfoods, we suggest that marketing practitioners emphasize the values embodied in superfoods in their marketing and persuasion messages (Meilhan, 2019). In addition to relying on the use of the term 'super,' marketing messages (e.g., advertising and packaging) need to convey what makes superfoods super (Šamec et al., 2019). This could be done by highlighting the values embodied, thereby shaping consumers'

perceptions of the food that is being marketed (Jezewska-Zychowicz et al., 2021). For example, to highlight functional value, marketers could, on the one hand, focus on the high quality of superfoods (e.g., naturalness and healthiness) and, on the other, highlight how well superfood ingredients taste (e.g., their organicity and being additive-free) (Choe & Kim, 2018). The emotional value of superfoods could be reflected by illustrating the positive changes and brighter outlook that could potentially be brought about by superfoods, thereby highlighting appeals around how superfoods may make people feel happier or more positive (Dagevos & Ophem, 2013). Social value could be emphasized in various ways. For example, using social media to create social trends for a food, especially among the particular group to which the target consumers belong, would give superfoods more social meaning (De Jans et al., 2021). In another example, marketers could use the copywriting on packaging or in-store displays (e.g., 'as seen on Instagram' or 'Influencers' choice') to facilitate offline sales by taking advantage of popular online trends. Situational value in this research indicates the extent to which consumers expect superfoods to alleviate their health problems. In this case, marketing messages for superfoods could emphasize the nutrition that a particular superfood contains and how this assists the human body and potentially addresses health issues (Tudoran et al., 2009). However, this needs to be done with the support of scientific evidence and, ideally, the endorsement of the authorities.

Second, the core finding of this study stresses that consumers' perceptions of the advantages of eating superfoods relative to other diets play a crucial role in facilitating consumers' purchases and motivating their positive WOM about superfoods. Therefore, in superfood marketing, we suggest that practitioners underline the unique benefits that superfoods offer to consumers in comparison to the alternatives. This means that it is not only important to specify what superfoods offer (e.g., the values embodied), but also to reveal in the marketing messages what inferior alternatives do not (Hoefkens et al., 2009). For example,

messages such as ‘smoother taste’ and ‘80% more Vitamin C’ would help consumers to develop a more favorable evaluation of the relative advantages of superfoods (Sujan & Dekleva, 1987). Again, such claims must be genuine and accompanied by scientific evidence. If this is done, consumers will be further convinced of the comparative benefits offered by superfoods and thereby more likely to purchase and speak positively about them (Bambauer-Sachse & Heinzle, 2018). Relative advantages are particularly important when the costs of a superfood are high. This is because although consumers may choose not to consume more of the product due to its high costs, they may still be keen to act as product ambassadors and spread positive WOM about it. Recommendations from experienced consumers are particularly important in assisting potential consumers’ purchase decisions (Chang & Chang, 2017).

Third, in our research, perceived costs capture the cost of money, time and effort in superfood consumption; Hence we suggest that superfood producers lower the perceived costs of consuming superfoods. This could be done in various ways. In terms of monetary cost, superfood producers could choose to lower the margin for market penetration or use direct selling to save the potential commission and logistical costs, which could then benefit consumers (Herforth & Ahmed, 2015). In terms of time and accessibility, superfood producers could consider collaborating with reputable retailers or operating a self-sustaining online shop to ensure the products are easily accessible by consumers (Drewnowski, 2018). In both the online (e.g., clear product descriptions and benefits, nutrition charts and suitable groups) and offline (e.g., consistent and highly visible packaging and labeling and eye-level shelf positioning) environments, relevant and useful information needs to be provided to reduce customer anxiety and confusion when making purchase choices (Young et al., 2020; Zou & Liu, 2019).

In addition to the implications for marketing practitioners, this study sheds light on regulations and policies on food manufacturing and consumption for policy makers and

authorities. According to EU rules, the word 'superfood' can only be used on products that provide credible scientific evidence from authorized bodies that notifies consumers how the product benefits their health (Valentine, 2016). However, when we conducted our research, we observed that the way in which scientific evidence is provided to consumers has not been standardized. This leads to enormous consumer confusion (Gupta & Mishra, 2021). We therefore urge policy makers to develop a more detailed superfood accreditation scheme and standardize the way scientific evidence is presented. This is important because 'super' is a subjective perception-based concept in the current marketplace. As such, the development of standardized superfood labeling would be helpful in making it easier for consumers to reach decisions (Golan et al., 2001). It is necessary for policy makers and regulating bodies to intervene to minimize consumer confusion. Furthermore, the media plays an irreplaceable role in the superfood trend (Roth & Zawadzki, 2018). Here, we suggest the media, especially the mainstream media and opinion leaders, shoulder more social responsibilities by providing consumers with more accurate and credible information to guide their food consumption decisions (Rickard & Feldpausch-Parker, 2016).

7. Limitations and future research directions

Although our study makes important contributions to theory and practice by introducing the concept of relative advantages in food consumption and offers an explanation for the cognitive mechanisms of consumers' superfood consumption and advocacy, it has certain limitations that have implications for future research. First, as one of the first studies of superfoods from the consumers' perspective, our research views the superfood concept as a whole. Future research could adopt the same research method to explore the nuanced differences between packaged/lightly processed superfoods (e.g., chia seeds and wheatgrass powder) and superfood ingredients (e.g., kale and avocado) (Meyerding et al., 2018). Second, this research focuses on

existing superfood consumers (i.e., those who believe that they have consumed superfoods) and their value perceptions. However, potential consumers can also perceive value from a product, even though their value perceptions might be different from those of experienced consumers whose value perceptions are based on prior experience (Wu et al., 2018). Thus, future research could validate perceptions among potential superfood consumers in order to generalize the findings. Third, all our respondents were UK residents. Prior research acknowledges that culture plays an important role in food consumption (Seegebarth et al., 2016). Superfood consumers in other geographic locations, such as countries in the Far East and the regions of North America, may have different value perceptions regarding the factors that influence superfood evaluation and purchase. Cross-cultural research could be conducted to examine the extent to which superfood consumption is culturally distinct. Last, the current research emphasizes the value perceptions and relative advantages of superfoods and illustrates the cognitive mechanism of repurchase and positive WOM. However, the suggestion of the existence of superfoods is often questioned as a marketing gimmick. It would be worth exploring the darker side of consumers' perceptions toward superfoods (e.g., cynicism and skepticism) and negative responses (e.g., resistance and rejection) (Rodney, 2018).

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Figures and Tables

Fig. 1: Research framework

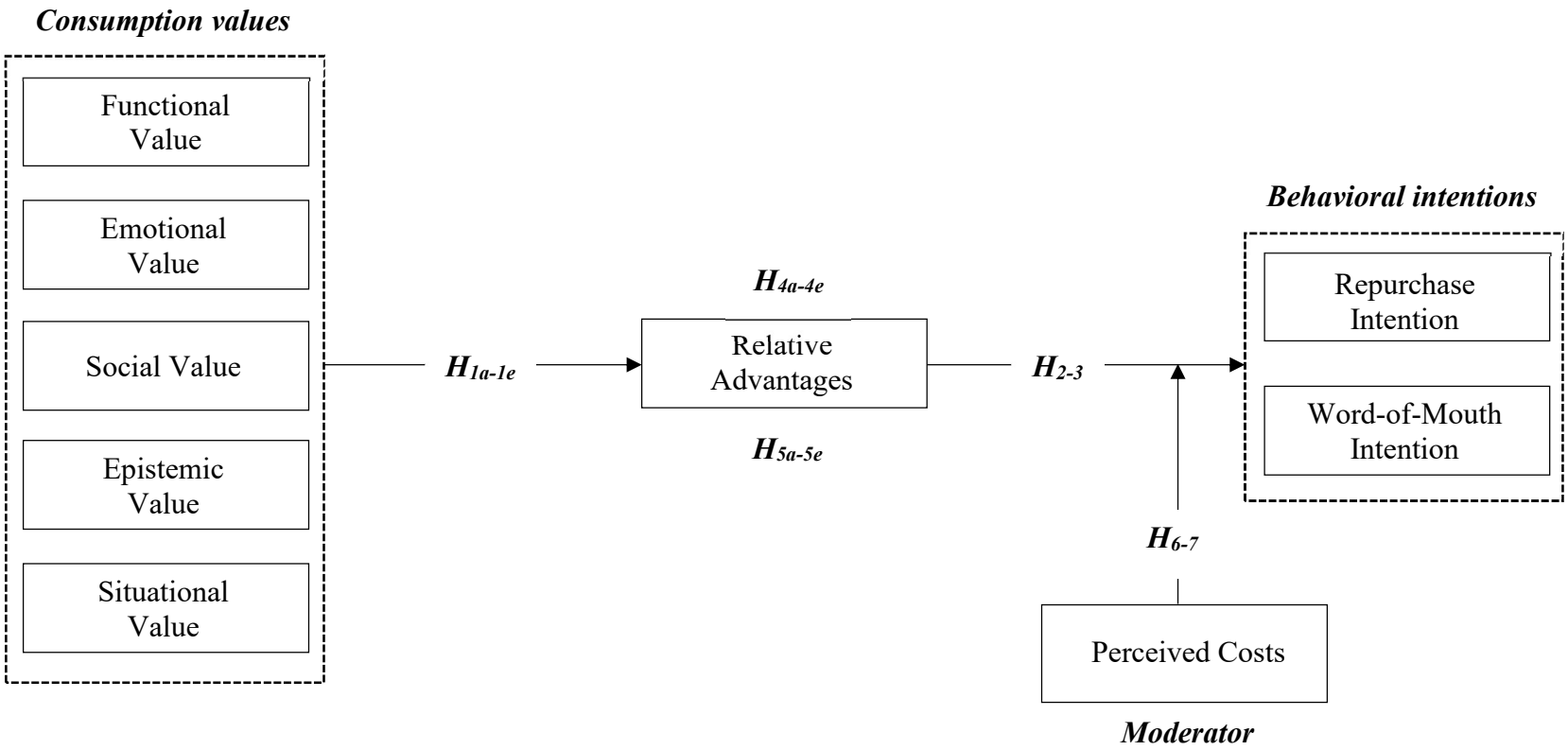

Fig. 2: Word cloud of superfoods

Fig. 3: Estimation results for the structural model

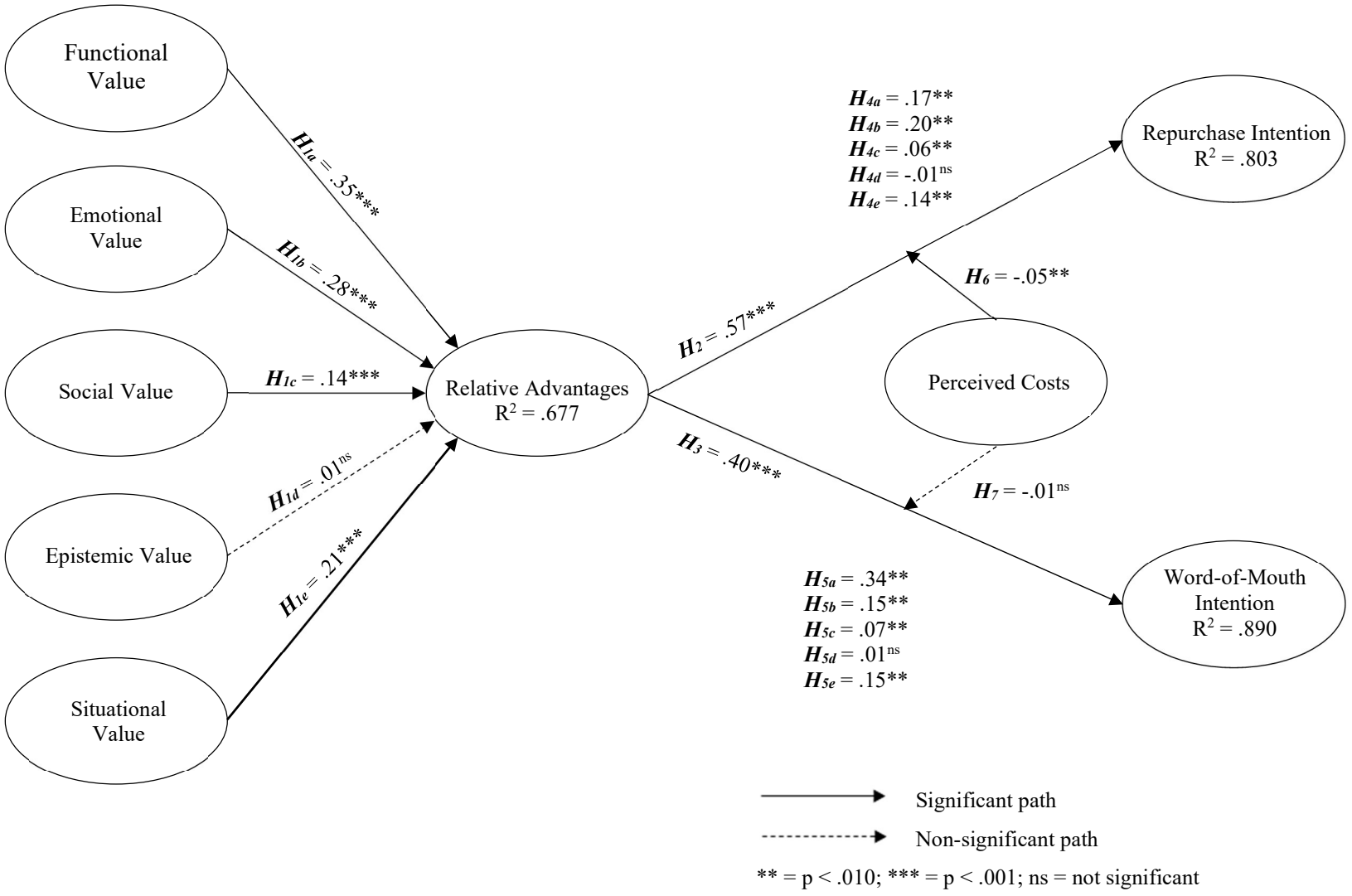

Table 1: Summary of marketing and consumer research on superfoods

Author (Year)	Superfood type	Method and sample	Country	Key findings
Groeniger et al. (2017)	• Spelt • Quinoa • Goji berries • Chia seeds • Wheatgrass	***Method:*** Survey ***Sample:*** 2812	Netherlands	***Superfood consumption was:*** • prevalent among higher socioeconomic groups; • highly patterned by socioeconomic position; and strongly correlated with cultural participation – a classical indicator of social distinction.
Meyerding et al. (2018)	• Amaranth • Chia seeds • Linseed • Quinoa	***Method:*** Survey ***Sample:*** 505	Germany	• Consumers can be categorized into quality-oriented, health-conscious, and price-conscious groups based on their motives for food consumption.
Sikka (2019)	• Goji berries • Chia seeds • Maca powder • Hemp	***Method:*** Analysis of media texts ***Sample:*** Media coverage of superfoods in the past five years	N/A	• Superfood consumption has become tied to expressions of self- and group identity. • Individuals' engagement in superfood practices has various levels of identity expression and group conformity based on one's commitment to superfood trends. • Superfood lifestyles are manifest in online spaces, including conversations about the health effects of superfoods.
Erler et al. (2020)	• Millets	***Method:*** Observation and interviews ***Sample:*** 104	India	***Main reasons for organic food consumption are:*** • to improve health; • to optimize their bodies; • caring for children or relatives with health problems; • a general mistrust of the mainstream agri-food system; and • influenced by commercials and the advice of medical and nutritional professionals.
Jyske et al. (2020)	• Norway spruce sprouts • Norway spruce needles	***Method:*** Survey ***Sample:*** 1197	Finland	• Ice-cream with fresh sprout additions was described as very good or good. • Male respondents slightly preferred sorbet over ice-cream with sprouts; female respondents slightly preferred sprout ice-cream to sprout sorbet.
Lucas et al. (2021)	***Fruits:*** Goji berries, Açaí berries and Pomegranate ***Grains/Seeds:*** Chia seeds and Quinoa ***Leaves:*** Moringa ***Algae:*** Spirulina and Chlorella	***Method:*** Survey ***Sample:*** 442	Switzerland	***Key characteristics of superfood consumers:*** • belief in the health benefits of superfoods; • have high nutritional knowledge; • interested in organic and natural ingredients; and • creative when cooking, etc.
Muziri et al. (2021)	• Quinoa	***Method:*** Survey ***Sample:*** 167	Zimbabwe	• Quinoa needs to be promoted with additional emphasis on health and nutritional aspects. • The consumption of quinoa relies on respondents' functional health literacy. However, respondents' education and level of income play a secondary role.

Table 2: Food research based on the theory of consumption values

		Explanatory variables							
Author/ Year	**Sample profile**	**Functional value**	**Emotional value**	**Social value**	**Epistemic value**	**Situational value**	**Other variables used in the study**	**Additional theoretical context**	**Key findings**
Rahnama (2017)	**Place** Iran **Sample size** 483 women **Food type** Organic yogurt	●	●	●	●	●	**Other variables** • Environmental value **Outcome** • Choosing organic yogurt	N/A	• Functional value–quality, functional value–taste, and functional value–price; conditional (situational) value; epistemic value; and health value have positive effects on choosing organic yogurt among women. • Social value, emotional value, and environmental value have no effects. • Epistemic value and health value have the highest impact on women's choice behavior toward organic yogurt.
Rahnama and Rajabpour (2017)	**Place** Iran **Sample size** 1420 **Food type** Dairy product	●	●	●	●	●	**Outcome** Choosing dairy products	N/A	• Functional value, social value, emotional value and epistemic value have a positive impact on choosing dairy products. • Conditional (situational) value does not have a significant impact on choosing dairy products. • Emotional value has a stronger influence on consumers' choice behavior toward dairy foods. • The main influential factors for consumers' choice behavior toward dairy products included consumers experiencing positive emotion (e.g., enjoyment, pleasure, comfort and feeling relaxed) and functional value–health.
Kushwah et al. (2019)	**Place** India **Sample size** 452 **Food type** Organic food	●	●	●	●	●	**Outcome** • Ethical consumption intentions • Choice behavior	N/A	• Social, emotional, and epistemic values have a significant association with ethical consumption intentions. • Epistemic value was identified as the most important influencer toward both ethical consumption and choice behavior. • Buyers and non-buyers were not significantly different in any established relationships. However, consumers with varying levels of environmental concerns were statistically different when it came to the associations of epistemic and price-related functional values and ethical consumption intentions.

Muhamed et al. (2019)	**Place** Malaysia **Sample size** 1550 **Food type** Halal-certified food		●		●		**Other variables** • Halal concerns **Outcome** • Choice behavior	Religious values	• The importance of halal certification had the highest impact on consumer choice behavior, particularly in the purchase of halal-certified food supplies. • Epistemic and emotional values were both statistically significant in terms of their influence on the consumer decision-making process.
Qasim et al. (2019)	**Place** Pakistan **Sample size** 406 **Food type** Organic food	●	●	●	●	●	**Mediator** Environmental self-identity **Moderator** Health consciousness Gender, age, education, income **Outcome** Behavioral intentions	Self-identity theory	• The functional value of quality, conditional (situational), epistemic, and emotional value had a significant positive impact on behavioral intention. • The functional value of price and social value did not have an impact on behavioral intention. • Environmental self-identity significantly mediated the relationship between the functional value of quality, conditional (situational), epistemic, and emotional value, and behavioral intention. • Environmental self-identity did not significantly mediate the relationship between the functional value of price and social value and behavioral intention. • Health consciousness had a significant positive effect on both environmental self-identity and consumers' behavioral intention. • Gender, age, education and income level had an insignificant influence on environmental self-identity and behavioral intention.
Thomé et al. (2019)	**Place** Brasilia, Brazil **Sample size** 292 **Food type** Healthy food	●	●	●	●	●	**Moderator** Physical activity **Outcome** Eating choice	N/A	• Consumers' healthy eating choices were significantly related to epistemic value, emotional value, conditional (situational) value, and functional value of price. However, healthy eating choices were strongly linked to epistemic and emotional values. • The social value dimension was not significantly related to healthy eating choices. • Physical activities moderated the relationships between healthy eating choices and the emotional value and functional value of price.

Lin et al. (2020)	**Place** China **Sample size** 514 **Food type** Organic food	●	●				**Other variables** • Social commerce characteristics (interactivity, recommendation, feedback) • Organic food characteristics (food safety, eco-friendliness) **Outcome** • Purchase intention	N/A	• Interactivity, recommendations and feedback were important social commerce characteristics, which interact and serve as inputs for functional value and emotional value assessments, which, in turn, drive purchase intentions of organic foods. • Food safety and eco-friendliness were key organic food characteristics, which interact and serve as inputs for functional value and emotional value assessments and drive purchase intentions of organic foods via social commerce. • Functional value is more instrumental in this process; there was also a significant difference between males and females in the formation of purchase intention.
Yeap et al. (2020)	**Place** Penang **Sample size** 305 **Food type** Street food	●	●	●	●		**Other variables** Attitude toward Penang street food **Mediator** Place attachment **Outcome** Intention to revisit Penang for street food	Affect, behavior and cognition model of attitudes	• Functional (taste) value had the most salient effect on attitude toward Penang street food, followed by emotional value. • Health value, price value, interaction/social value, and epistemic value were found to be insignificantly related to attitude toward street food. • The impact of attitude on the intention to revisit Penang for its street food was mediated by place attachment.
Lang and Conroy (2021)	**Place** Vietnam **Sample size** In-depth interview 27 **Food type** Organic vegetables	●	●	●	●	●	**Qualitative study** • Three different groups of buyers (regular, occasional, and non-buyers) • Trust in organic food • Perceived trustworthiness of food actors and systems	N/A	• Trust and distrust of the food system, a much wider concept than trust in food labeling, was a determinant of consumption values of organic food and, therefore, a determinant of organic food choice. • There was a direct link between perceived consumption values, trust in the whole food system and food choice decision. • Different strategies were used by regular buyers (actively seeking information), occasional buyers (reliance on social control mechanisms), and non-buyers (perceived knowledge sufficiency) to cope with their lack of trust in the food system.

Table 3: Demographic profile (N=447)

Demographic	Range	Frequency	Percentage (%)
Gender	Male	114	25.50
	Female	331	74.05
	Other	2	0.45
Age	18-20	16	3.58
	21-30	128	28.63
	31-40	135	30.20
	41-50	92	20.58
	51-60	56	12.53
	61-70	18	4.03
	71-80	2	0.45
Educational level	Lower than secondary school	2	0.45
	Secondary school	68	15.21
	College	139	31.10
	Bachelor's degree	163	36.47
	Master's degree	54	12.08
	Professional degree	13	2.90
	Doctorate	6	1.34
	Prefer not to answer	2	0.45
Marital status	Married	149	33.33
	Widowed	5	1.12
	Divorced	21	4.70
	Separated	4	0.89
	Single	128	28.64
	In a relationship	140	31.32
Annual income	Less than £10,000	24	5.37
	£10,000-£15,000	42	9.40
	£15,000-£20,000	42	9.40
	£20,000-£25,000	35	7.83
	£25,000-£30,000	43	9.62
	£30,000-£40,000	69	15.44
	£40,000-£50,000	68	15.21
	£50,000-£75,000	73	16.33
	£75,000-£100,000	31	6.93
	£100,000-£150,000	18	4.03
	£150,000-£200,000	1	0.22
	£250,000 and above	1	0.22

Table 4: Construct items with descriptive statistics, factor loadings, reliability scores, variation inflation factors and intraclass correlations

Item	M	SD	FL	α	VIF	ICC 1	ICC 2
						95% CI [Lower, Upper], p<.001	
Functional Value (FCV) (adapted from Choe & Kim, 2018; Rahnama, 2017)							
• Superfoods provide a variety of nutrition.	5.86	0.88	.750				
• Superfoods provide good nutrition.	6.06	0.85	.845				
• Superfoods are healthy.	6.08	0.87	.802	.879	1.768	.519 [.411, .609]	.844 [.777, .886]
• Superfoods provide good-quality ingredients.	5.62	0.96	.755				
• Superfoods provide a high standard of quality.	5.24	0.88	.717				
Emotional Value (EMV) (adapted from Choe & Kim, 2018; Rahnama, 2017)							
• Eating superfoods gives me pleasure.	4.30	1.36	.760				
• Eating superfoods makes me feel excited.	3.50	1.46	.862				
• I am fascinated by superfoods.	3.57	1.55	.789	.891	2.222	.554 [.453, .637]	0.861 [.805, .898]
• Eating superfoods changes my mood positively.	4.26	1.34	.784				
• Superfoods make me crave them.	3.18	1.38	.757				
Social Value (SCV) (adapted from Choe & Kim, 2018; Thomé et al., 2019)							
• I like it when other people comment and like that I eat superfoods.	3.24	1.68	.896				
• I like it if my peers notice that I eat superfoods.	3.06	1.62	.879				
• I feel good if I can tell others that I eat superfoods.	3.32	1.67	.863	.934	1.546	.722 [.679, .760]	.928 [.914, .941]
• Eating superfoods gives me a chance to show off my lifestyle to others.	2.88	1.64	.845				
• If I eat superfoods, I will create a positive impression on others.	3.58	1.60	.819				
Epistemic Value (EPV) (adapted from Choe & Kim, 2018; Thomé et al., 2019)							
• I think that I want to try more diverse superfoods.	4.98	1.36	.860				
• I think that I want to seek out more information about superfoods.	4.63	1.44	.831	.833	2.262	.616 [.565, .663]	.828 [.796, .855]
• I think that eating superfoods is a good opportunity for me to learn new things.	4.73	1.43	.686				
Situational Value (STV) (adapted from Hunt et al., 1981; Thomé et al., 2019)							
• I think eating superfoods could make me feel more energetic.	5.19	1.24	.831				
• I think eating superfoods could make me sleep better.	4.60	1.33	.829	.861	2.079	.519 [.373, .630]	.812 [.704, .872]
• I think eating superfoods is beneficial for my mental health.	4.94	1.35	.816				
• I think eating superfoods could make me suffer less from physical pain.	3.91	1.45	.664				

Relative Advantage (RLA) (adapted from Leckie et al., 2018; Meuter et al., 2005; Müller-Stewens et al., 2017)							
• Superfoods can do what other foods cannot do.	4.13	1.43	.863				
• I believe eating superfoods is the best dietary style.	4.24	1.43	.844				
• Superfoods have higher quality than other foods.	4.40	1.39	.818	.912	2.256	.642 [.583, .694]	.900 [.875, .919]
• Superfoods offer unique benefits.	4.69	1.32	.793				
• Superfoods replace a vastly inferior alternative.	3.86	1.38	.788				
Perceived Costs (PRC) (adapted from Meuter et al., 2005; Ping, 1993)							
• It's just not worth the hassle for me to consume and eat superfoods.	3.50	1.48	.909				
• For me, the cost in time, effort and money to consume and eat superfoods is high.	4.13	1.57	.737	.818	1.383	.575 [.504, .638]	.803, [.753, .841]
• Changing to a more superfood-based dietary style would be a bother.	3.69	1.52	.654				
Repurchase Intention (RPI) (adapted from De Toni et al., 2018; Wang & Tsai, 2019)							
• I would continue buying superfoods.	4.30	1.51	.880				
• I would buy superfoods if I happened to see them in a store or online.	4.15	1.56	.875	.901	3.379	.724 [.652, .780]	.887 [.849, .914]
• I would like to try more superfoods in the future.	3.71	1.61	.850				
Word-of-Mouth Intention (WoMI) (adapted from Fullerton, 2003)							
• I will recommend superfoods to someone who seeks my dietary advice.	4.98	1.33	.858				
• I will encourage friends and relatives to find out more about superfoods.	5.52	1.19	.847	.881	2.664	.682 [.604, .743]	.865 [.821, .897]
• I will say positive things about superfoods to other people.	5.34	1.40	.836				

Note: M = mean; **SD** = standard deviation; **FL** = standardized factor loadings; **α** = Cronbach's alpha; **VIF** = variation inflation factor; **ICC** = intraclass correlations; **CI** = confidence interval

Table 5: Convergent and discriminant validity

	CR	AVE	MSV	1	2	3	4	5	6	7	8	9
1. FCV	.882	.601	.402	**.775**								
2. EMV	.893	.627	.554	.444***	**.792**							
3. SCV	.935	.741	.319	.355***	.539***	**.861**						
4. EPV	.837	.634	.628	.516***	.697***	.447***	**.796**					
5. STV	.867	.622	.529	.634***	.609***	.489***	.666***	**.788**				
6. RLA	.912	.675	.625	.634***	.645***	.523***	.592***	.667***	**.822**			
7. PRC	.815	.600	.400	-.373***	-.421***	-.087	-.413***	-.385***	-.340***	**.774**		
8. RPI	.902	.754	.625	.586***	.745***	.564***	.733***	.727***	.791***	-.525***	**.868**	
9. WoMI	.884	.718	.628	.612***	.676***	.355***	.792***	.618***	.626***	-.632***	.786***	**.847**

Note: CR = composite reliability; **AVE** = average variance extracted; **MSV** = maximum shared squared variance; **FCV** = functional value; **EMV** = emotional value; **SCV** = social value; **EPV** = epistemic value; **STV** = situational value; **RLA** = relative advantage; **PRC** = perceived costs; **RPI** = repurchase intention; **WoMI** = word-of-mouth intention. Significance of correlations: * = $p < .050$; ** = $p < .010$; *** = $p < .001$

Table 6: Results of heterotrait–monotrait ratio analysis

	1	2	3	4	5	6	7	8	9
1. FCV									
2. EMV	.471								
3. SCV	.367	.541							
4. EPV	.526	.707	.462						
5. STV	.631	.629	.504	.683					
6. RLA	.644	.654	.536	.619	.690				
7. PRC	.327	.408	.044	.345	.326	.280			
8. RPI	.587	.757	.572	.749	.739	.795	.477		
9. WoMI	.610	.689	.361	.781	.620	.629	.580	.783	

Table 7: Comparison of CFA model and marker variable

Model	$x^2(df)$	CFI	RMSEA (90% CI)	LR of Δx^2	Model comparison
CFA with marker variable	1341.672 (657)	0.944	0.048 (.045, .052)		
Baseline	1404.249 (660)	0.940	0.050 (.046, .053)		
Method-C	1403.491 (668)	0.940	0.050 (.046, .054)	0.76, $\Delta df = 1$, p=.384	vs. Baseline
Method-U	1263.793 (633)	0.949	0.047 (.043, .051)	139.7, $\Delta df = 35$, p=.000	vs. Method-C
Method-R	1270.964 (669)	0.951	0.045 (.041, .049)	7.17, $\Delta df = 36$, p=.999	vs. Method-U

Note: CFA = confirmatory factor analysis; CFI = comparative fit index; RMSEA = root mean square error of approximation; LR = likelihood ratio test; C = constrained; U = unconstrained; R = restricted.

CFA marker model = CFA with a marker variable; **Baseline model** = marker variable having fixed factor loadings and error variances with unstandardized factor loadings and error variances obtained from the CFA marker model; **Method-C model** = constrained model in which the substantive item factor loadings from the marker variable are constrained to be equal; **Method-U model** = unconstrained model in which the substantive item factor loadings from the marker variable are freely estimated; **Method-R model** = restricted model in which the substantive factor correlations of Method-U are restricted to the values obtained from the Baseline model.

Table 8: Results of hypothesis testing

Hs	Path direction			Std. β	SE	t-value	p-value	Result
H_{1a}	Functional Value			.352	.055	10.07	***	Supported
H_{1b}	Emotional Value			.276	.043	6.717	***	Supported
H_{1c}	Social Value	→	Relative Advantages	.145	.026	4.313	***	Supported
H_{1d}	Epistemic Value			.013	.053	0.285	.775^{ns}	Not supported
H_{1e}	Situational Value			.210	.055	4.433	***	Supported
H_2	Relative Advantages	→	Repurchase Intention	.571	.067	7.773	***	Supported
H_3		→	Word-of-Mouth Intention	.391	.034	14.54	***	Supported
H_6	Relative Advantages x Perceived Costs	→	Repurchase Intention	-.053	.012	-3.118	.002**	Supported
H_7	Relative Advantages x Perceived Costs	→	Word-of-Mouth Intention	-.010	.016	-0.596	.551^{ns}	Not supported

** = p < .010; *** = p < .001; ns = not significant

Table 9: Results of mediation effects

Indirect Paths to PI		**Std. β**	**Lower**	**Upper**	**p-value**	**Result**
H_{4a} Functional Value		.175	.072	.319	.002**	Supported
H_{4b} Emotional Value		.196	.120	.297	.002**	Supported
H_{4c} Social Value	→ Relative Advantages → Repurchase Intention	.058	.031	.103	.001**	Supported
H_{4d} Epistemic Value		-.011	-.086	.058	.812^{ns}	Not supported
H_{4e} Situational Value		.140	.059	.269	.003**	Supported
Indirect Paths to WoMI						
H_{5a} Functional Value		.343	.259	.460	.001**	Supported
H_{5b} Emotional Value		.147	.086	.251	.001**	Supported
H_{5c} Social Value	→ Relative Advantages → Word-of-Mouth Intention	.066	.036	.100	.001**	Supported
H_{5e} Epistemic Value		.011	-.079	.104	.778^{ns}	Not supported
H_{5e} Situational Value		.146	.064	.241	.003**	Supported

Note: ** = p < .010; *** = p < .001; ns = not significant