

Perceived Consumer Effectiveness and Sustainable Credence Food Attributes

Subjects: **Others**

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While perceived consumer effectiveness has consistently been linked to socially conscious attitudes, such as sustainable consumption decisions, the concept appears to have been confounded with other related constructs in the empirical studies measuring its effects on consumer buying intentions and consumer behaviour. A sustainable food consumer evaluation is based on product values and credibility to health, origin, environment, and ethical concerns.

sustainable food consumption

perceived consumer effectiveness

credence attributes

1. Perceived Consumer Effectiveness

Perceived consumer effectiveness (PCE) is generally defined as the consumer's confidence in his or her ability to achieve the outcomes that he or she personally values and has set as a goal. Perceived consumer effectiveness is defined by Hanss and Doran ^[1] (p.1) as an assessment of the consumer's ability to value certain sustainable development outcomes and to contribute to their achievement through certain consumer behaviours. PCE is mostly attributed to the psychological factors of consumer behaviour; however, cultural, social, and personal factors also play an important role in the formulation of PCE. ^[1].

The influence of perceived efficacy on intentions has been examined in previous studies highlighting the impact on consumer behaviour ^{[1][2][3][4][5][6]}.

Heo and Muralidharan ^[7] say the effects of PCE on environmentally conscious consumer behaviour (ECCB) have received much attention in academia. Academic research findings are mixed, with some studies finding significant predictors of environmentally conscious consumer behaviour. Demographic characteristics may determine the level of perceived effectiveness, with younger generations wanting their contribution to be more effective in terms of sustainability. Previous research has shown that PCE differs between demographic groups ^{[8][9][10][11]}, and former results show that it is more pronounced in younger age groups ^[12].

The findings of d'Astous and Legendre ^[13] reveal that PCE positively correlated with relative green behaviours. Webb et al. ^[14] have also reported that PCE is a key determinant of socially responsible consumption. In their study, Heo and Muralidharan ^[7] found, based on previous studies, that PCE is an important predictor of pro-environmental behaviour, but the data are largely based on the separate effects of environmental variables. A consumer may be very concerned about a particular societal problem and at the same time feel helpless to

contribute to solving that problem through his or her own behaviour. For instance, within the European Union (EU) large numbers of people are alarmed by global climate change ^[15]; there is a sentiment that there is not much that individuals can personally do about the problem. This can be an obstacle to individual commitment to climate change ^[16]. When modelling the impact of perceived consumer effectiveness on consumer behaviour, several studies have stated the direct and indirect impact on buying intention ^{[17][18][19][20][21][22][23][24][25][26][27]}. Vermeir and Verbeke ^[28] also found that PCE was positively correlated with attitudes towards purchasing sustainable dairy products, and thus with purchase intention.

2. Sustainable Credence Food Attributes

The sustainable marketing strategies are progressing towards a relational mindset that involves emphasizing experiential attributes and credence values of a product, thereby creating more valuable experiences for consumers.

The consumer decision-making process involves a number of stages that are influenced by personal and environmental factors. The decision-making process is not only about satisfying needs from an economic perspective, but also about psychological, sociological (person-related), and cultural (environmental) aspects ^[29]. Engel et al. ^[30] emphasize the economic aspect, but also agree that non-rational factors related to food decision behaviour must also be studied. Steenkamp ^[31] underlines that the food decision process is mainly influenced by social and emotional factors. The factors that influence food choices have been studied by different researchers. Attributes related to sustainability are assigned to the different aspects of sustainable food consumption. Credence attributes are a category of food attributes that refer to a variety of intangible elements that cannot be verified by consumers (e.g., environmental safety, food health, product origin, production conditions, social benefits) ^[32].

Credibility and its impact on consumers' purchasing behaviour ^[33] has classified credence attributes into seven main categories identified in the literature: (a) health, (b) organic food, (c) origin, (d) brand, (e) production methods, (f) ethics, and (g) descriptive food names and ingredients.

Some food attributes aspects particularly involve the quality attributes defined in the literature as 'credence' ^[34] that are not directly verifiable by the consumer either before or after purchase, and which include environmental, social, and ethical attributes of the product ^[35]. Food-related credence attributes play an important role in the sustainable food marketing system, as consumers' food choices are increasingly influenced by credibility elements related to sustainable and internal food attributes. Further studies show that credence attributes play an important role in consumer purchasing decisions ^{[28][36]}.

Organic foods fall into the credence category because a variety of attributes make it difficult for consumers to evaluate the quality of organic food. By focusing on two credibility attributes of organic food (food safety and environmental friendliness), Lee and Hwang ^[32] found that these attributes have effects on perceptions of food quality. Previous research used experimental methods to determine consumers' willingness to pay for 'high-quality' food ^[37].

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3. Willingness to Pay for Sustainable Food Attributes

Pricing plays a key role in consumer perception of overall product quality. Willingness to pay (WTP) can be defined as the maximum price a buyer is willing to pay for a given set of goods or services [38]. Whether or not consumers are willing to pay for a certain product feature is based on personal values, buying contexts, and other factors. Li and Kallas' [39] meta-analysis research of consumers' willingness to pay for sustainable food products highlighted that gender, region, sustainable attributes, and food categories influence the WTP estimate, and there are significant differences between global regions. According to their results, the overall average willingness to pay a surcharge for sustainability in percentage terms is 29.5%. Additionally, the WTP value of an organic attribute is higher than the other sustainable attributes. Molinillo et al. [40] and Coderoni and Perito [41] also emphasized the impact of organic attributes on sustainability behaviour. Although there is a continuous increase in the number of studies dealing with consumers' willingness to pay price premiums for sustainable food products.

Dolgoplova and Teuber [42] in 2018 summarised the former research on consumers' willingness to pay for health benefits in food products: a meta-analysis stated that health benefits in foods indicate heterogeneous marginal willingness to pay (MWTP) for health benefits and differences in food product categories. Former studies have emphasized the importance of organic labelling [43][44]. Focusing primarily on product-related factors, Krystallis and Chrysosoidis [45] found different levels of WTP for premium prices in organic food categories. Zhao et al. [46] studied consumers' perception, purchase intention, and willingness to pay for carbon-labelled products and found that consumers indicated their intention to buy carbon-labelled products, but the level of product premium was low. Zhang et al. [47] studied consumers' perceptions, purchase intention, and willingness to pay a premium price for safe vegetables. Their findings revealed that healthy, nutritious, environmentally friendly, green, sustainable and clean product trademarks were attributes that two-thirds of consumers identified as safe vegetables via certification labels on the vegetable packages, and consequently 65.8% of them would pay a premium price to buy safe vegetables. Regarding fair trade food products, this attribute is relatively new and unknown, and limited products are sold under this label [48][49][50]; therefore, it has little impact on consumer behaviour. Yin et al. [51] examined consumer preference for organic foods and on consumers' willingness to pay (WTP) for organic labels from dissimilar countries or certifiers. Determining distinct preferences for organic labels from various sources and countries can be a valuable reference for manufacturers or international certification service providers.

According to Katt and Meixner [38], product attributes such as perceived quality play an important role in willingness to pay for products with sustainable credence attributes. Their results show significant differences in demographic characteristics of consumers such as education and gender. Printezis et al. [52] studied the literature on willingness to pay for the attribute 'local', and found that methodological approach and the country analysed can have a significant impact on local WTP.

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