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TRABAJO FIN DE MÁSTER

Green Marketing, Green Consumer Behaviour and Willingness to Pay more for organic food

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ABSTRACT

Purpose – To analyse the state of the art of Green Marketing; Green Consumer Behaviour theories and influencing factors regarding organic food; and their willingness to pay (WTP), their influencing factors and methods of obtaining them.

Methodology – A literature review taking 16 systematic review studies from 2017 to 2022 range which are relevant to the topics described before. Eleven JCR Q1, one SJR Q1, three JCR Q2 and one JCR Q3 studies were taken.

Expected results – Uniform perception of the attitude-behaviour gap described in the systematic reviews carried out.

Practical implications – Practical implications for more targeted Green Marketing, and better understanding of Green Consumer´s drivers and barriers, as well as their willingness to pay (WTP) for green products and services.

Originality – A mapping of all the corners of the attitude-behaviour gap of the topics described above, as well as a first approach of an integrated model with conflicting conclusions.

Keywords

Green marketing, green consumer behaviour, attitude-behaviour gap, green willingness to pay, organic food

Resumen

Propósito: analizar el estado actual del marketing verde; las teorías del comportamiento del consumidor verde y los factores que influyen con respecto a los alimentos orgánicos; así como su disposición a pagar, sus factores y los métodos para analizarla.

Metodología: revisión de la literatura a través de 16 revisiones sistemáticas desde 2017 a 2022 relevantes para los temas descritos anteriormente. Se tomaron once estudios JCR Q1, uno SJR Q1, tres JCR Q2 y uno JCR Q3.

Resultados esperados: percepción uniforme de la brecha actitud-comportamiento de las revisiones sistemáticas elegidas.

Implicaciones prácticas: implicaciones prácticas para aplicar un marketing verde más preciso y conocer mejor las motivaciones y barreras de los consumidores ecológicos, así como su disposición a pagar por productos y servicios ecológicos.

Originalidad: descripción de todas las aristas de la brecha actitud-comportamiento de los temas antes descritos, así como una primera aproximación de un modelo integrado a partir de las conclusiones encontradas.

Palabras clave

Marketing verde, Comportamiento del consumidor verde, brecha actitud-comportamiento, disposición a pagar, alimentos ecológicos

1. INTRODUCTION

Disproportionate economic growth coming from overconsumption and irresponsible consumption negatively deteriorates the environment and contributes to climate change (Yam-Tang and Chan, 1998). It has caused worldwide attention and has a straightforward impact in all economies (NASA, 2022).

You might think that marketing is responsible for damaging the environment (Sharma, 2021). However, contradictory to popular belief, this science plays a key role in changing present economic model and bring sustainability (Dangelico and Vocalelli, 2017) by, for example, influencing consumption to be more sustainable (White et al., 2019). This type of marketing is called "Green Marketing", which basically means the integration of environmental sustainability into marketing (Dangelico and Vocalelli, 2017). The emergency of this approach has made Green Marketing grow significantly worldwide in recent times (Kumar and Ghodeswar, 2015; Rust, 2020).

On the other hand, consumers are aware of environmental degradation; their concern is also growing worldwide (Sharma, 2021). Their positive attitude towards the environment makes them try to change their habits towards more eco-friendly decisions in their daily life. These decisions are notable in food purchasing, where more and more consumers are consuming more and more organic food in recent years (European Parliament, 2021). It is not only for the environment, but for the health's sake, since organic food "encompasses natural food items which are free from artificial chemicals such as fertilizers, herbicides, pesticides, antibiotics, and genetically modified organisms" (Rana and Paul, 2017, p. 158). Therefore, food research in the Green Marketing literature is the most abundant (Zhang and Dong, 2020).

However, the Green Marketing literature has identified a consumer attitude and behaviour gap, where consumers optimistically say they are green, but their behaviour is not so green (i.e., Ketelsen et al., 2020; Milovanov, 2015; White et al., 2019). This gap remains highly complex and has not yet been robustly solved (Sharma, 2021). It has been observed that one of the main barriers found in purchasing organic food their higher price, even when consumers are prepared to pay an extra price for organic food (Katt and Meixner, 2020). Conclusions also state that consumers still need to learn to behave greener (Narula and Desore, 2016).

This study adopts a literature review approach to concretize and aggregate insight on the existing attitude-behaviour gap. It is composed by three sections, from the most general to the most specific. It begins with Green Marketing concept review and status. It is followed by Green Consumer Behaviour review in terms of organic food, where its theories and influencing factors are described. Finally, willingness to pay (WTP) more for organic food, where its influencing factors and methods to stablish the WTP are described. This study has great managerial implications by Green Marketing more accurate, and by understanding better the drivers and barriers of Green Consumers, as well as their WTP for green products and services.

2. RESEARCH OBJECTIVES

In the Rust study (2020), sustainability is one of the trends where marketing is bringing more emphasis. More specifically, this study was born to answer the following question: from Rust (2020) "what are the unconscious responses influencing consumers' WTP more for eco food?".

There is an attitude-behaviour gap in Green Marketing literature (e.g., Milovanov, 2015), which this study aims to add insight to close the gap. Therefore, this research has three complementary objectives to answer Rust´s (2020) question and the attitude-behaviour gap: Green Marketing, Green Consumer Behaviour and WTP; the last two objectives are related to organic food.

In Green Marketing, it is planned to analyse the evolution and conception of Green Marketing, as well as to present the state of Green Marketing in terms of updated conceptualizations in marketing science.

In Green Consumer Behaviour, it is necessary to solve why consumers buy green products (Narula and Desore, 2016), and their boundary conditions and influences (Bian, 2020). This study will focus on organic food. It is interesting to list theories to better understand better this type of consumers (Groening et al., 2018; Zhang and Dong, 2020).

Lastly, WTP factors influencing organic food and psychological barriers need robustness (Katt and Meixner, 2020; Kumar and Ghodeswar, 2015; Narula and Desore, 2016), as well as methods to provide WTP (Bian, 2020).

3. METHODOLOGY

This study follows Sharma (2021) and Dangelico et al. (2017) systematic review approach to construct a literature review. This method helps analysing the development of a field, identifying gaps for future research (Paul and Rosado-Serrano, 2019). Following Dangelico et al. (2017), data collection process, selection criteria and data extraction sections will be detailed.

3.1. Data collection process

Scopus and Web of science are being used as reference data bases. Other studies used EBSCO (Dangelico and Vocalelli, 2017; Groening et al., 2018; Katt and Meixner, 2020), Science Direct (Ketelsen et al., 2020; Narula and Desore, 2016), Google Scholar (Narula and Desore, 2016) and others, such as Wiley (Katt and Meixner, 2020), JSTOR or Business Source Complete (Groening et al., 2018). Not using these available data bases would be a limitation in terms of data loss.

Keywords used in the search were: 'green marketing', 'green marketing literature review', 'green willingness to pay' and ''green WTP literature review'.

On the other hand, other articles that could be found in this study have been collected from bibliography reviews and from authors of varied seminars such as Hennion and Kinnear (1976) and Peattie (2001b).

3.2. Selection criteria

A total of 16 studies have been selected for this master's thesis. This study has followed several steps to select relevant studies:

- A period filter was used to obtain studies from 2017 to 2022.
- The tittle of the studies must be in English.
- The tittle, if not the abstract, must be related to: (1) green marketing, green consumer behaviour or purchasing, or WTP in general; or (2) green marketing, green consumer behaviour or purchasing, or WTP regarding organic food. If another category is present in the tittle or abstract, the studies are rejected.
- Journals must be Q1 in Journal Citation Report (JCR), although Scimago Journal & Country Rank (SJR) Q1 and other JCR Q2 and Q3 studies have been selected due to the relevance of the content.

Table 1 describes the journals used in this study and their quartile. 16 studies come from Business Strategy and the Environment, Comprehensive Reviews in Food Science and Food Safety, Journal of Cleaner Production, Journal of Marketing, Journal of Retailing and Consumer Services, Sustainability in Innovation and Entrepreneurship, Trends in Food Science & Technology, International Journal of Consumer Studies, International Journal of Environmental Research and Public Health, Social Responsibility Journal, and British Food Journal. These journals seem to take the direction of green marketing, green consumer behaviour or purchasing, and WTP for organic food, especially Journal of Cleaner Production, which brings together 6 studies.

Table 1. Journals used

Journal	JCR Quartile	Articles
Business Strategy and the Environment	Q1	(Dangelico et al., 2021)
Comprehensive Reviews in Food Science and Food Safety	Q1	(Han et al., 2018)
Journal of Cleaner Production	Q1	(Dangelico and Vocalelli, 2017); (Groening et al., 2018); (Ketelsen et al., 2020); (Shao and Ünal, 2019); (Taufique and Vaithianathan, 2018); (Zhang et al., 2018)
Journal of Marketing	Q1	(White et al., 2019)
Journal of Retailing and Consumer Services	Q1	(Wei et al., 2018)
Sustainability in Innovation and Entrepreneurship	Q1 (SJR)	(Afonso et al., 2018)
Trends in Food Science & Technology	Q1	(Katt and Meixner, 2020)
International Journal of Consumer Studies	Q2	(Sharma, 2021)
International Journal of Environmental Research and Public Health	Q2	(Zhang and Dong, 2020)
Social Responsibility Journal	Q2	(Narula and Desore, 2016)
British Food Journal	Q3	(Padel and Foster, 2005)

Source: own elaboration.

3.3. Data extraction

'Thematic analysis' qualitative approach has been used, following Sharma (2021). This approach could help organizing studies in three categories: Green Marketing, Green Consumer Behaviour, and Willingness to Pay, as can be seen in Table 2:

Table 2. Category of selected articles

Category	Articles
Green Consumer Behaviour	(Afonso et al., 2018), (Dangelico et al., 2021), (Han et al., 2018), (Padel and Foster, 2005), (Shao and Ünal, 2019), (Sharma, 2021), (Taufique and Vaithianathan, 2018), (White et al., 2019)
Green Consumer Behaviour; Green Marketing	(Groening et al., 2018), (Ketelsen et al., 2020), (Zhang and Dong, 2020)
Green Marketing	(Dangelico and Vocalelli, 2017), (Narula and Desore, 2016)
Willingness to Pay	(Katt and Meixner, 2020), (Wei et al., 2018), (Zhang et al., 2018)

Source: own elaboration.

Table 2 is indicative since it is very common for the categories to overlap. That is why there is a category called 'Green Consumer Behaviour; Green Marketing', whose studies have been useful for both topics.

In order to get insightful conclusions on the three topics and achieve the research objectives, this study adopts the systematic review of Katt and Meixner (2020) and answers the following questions: "How solid are the conclusions to which it has arrieved? Are they based on sound reasoning, careful assessment of the evidence, and well-executed methodology? Or are there good reasons to doubt some of the existing conclusions? What is the general quality of the literature? What have we learned to date? What are the most important problems and gaps that require further research?".

4. GREEN MARKETING

4.1. Evolution of Green Marketing

'Green Marketing' emerged in the 60s in the United States (Sharma, 2021). It was in 1976 when Hennion and Kinnear (1976) mixed the principles of marketing with environmental challenges, defining Ecological Marketing as "*all marketing activities that have served to help cause environmental problems and that may serve to provide a remedy for environmental problems*" (1976, p. 1). But it was not until the 90's and since then, when marketing scholars began to pay considerable attention to the sustainability agenda (Dangelico et al., 2021; Narula and Desore, 2016; Sharma, 2021).

It is of great interest the Green Marketing organization done by Peattie (2001a) into three stages, not just summarizing the past, but also what was to come:

Table 3. Stages of Green Marketing

Age	Characteristics	Drawbacks
First Age: Ecological Green Marketing (1960 - mid of 1970)	First definition of Ecological Marketing by Hennion and Kinnear (1976). 'Environmental problems' as focus, where few companies were the root of the problem and other few ones could help.	Green Marketing is not simply a variation on traditional marketing (Dangelico and Vocalelli, 2017).
Second Age: Environmental Green Marketing (late 1980 - nowadays)	Integration of environmental concern in marketing corpus. Growing awareness of global environmental problems and competitive advantage with intention to achieve sustainability.	Capitalism with growth at foremost aim takes profit of Green Marketing.
Third Age: Sustainable Green Marketing (to be fully installed)	The most radical approach: meeting full environmental costs of production and consumption to create a sustainable economy	Yet seen as an alternative economy (Dangelico and Vocalelli, 2017)

Source: own elaboration from Peattie (2001a).

In these three stages, First Age could be surpassed due to the higher concern for the environment in society. But Second Age is still present today. After the year 2000, the number of firms changing their strategy towards sustainability has increased. That radical approach of the Third Age to considering sustainable behaviour as "normal" is missing, even without the need to define Green Marketing (Dangelico and Vocalelli, 2017).

4.2. Concept of Green Marketing

We could find Green Marketing named with adjectives such as: 'Green', 'Ecological', 'Eco', 'Sustainable' and others not compiled in Table 4. In this study there is going to be used 'Green Marketing', following most of studies.

Table 4 compiles the definitions of Green Marketing by Dangelico and Vocalelli (2017) and Groenig et al. (2018). Then, a conclusion of the approach of all definitions will be shown in Table 4.

Table 4. Definitions of Green Marketing

Definitions compiled by Dangelico and Vocalelli (2017)	**Authors**
Ecological Marketing is "concerned with all marketing activities that have served to help cause environmental problems and that may serve to provide a remedy for environmental problems […] The study of the positive and negative aspects of marketing activities on pollution, energy depletion and non-energy resource depletion"	Henion and Kinnear, 1976 [in Peattie 2001b, p.130]
Green Marketing is "the marketing response to the environmental effects of the design, production, packaging, labelling, use, and disposal of goods or services"	Lampe and Gazda, 1995, p. 303
Green Marketing is "the holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society, in a profitable and sustainable way"	Peattie, 1995 [in Peattie, 2001b, p.141]
"Green Marketing has been used to describe marketing activities which attempt to reduce the negative social and environmental impacts of existing products and production systems, and which promote fewer damaging products and services."	Peattie, 2001b, p.129
Green Marketing refers to "strategies to promote products by employing environmental claims either about their attributes or about the systems, policies and processes of the firms that manufacture or sell them"	Prakash, 2002, p. 285
"Green Marketing can be viewed both as a type of marketing and a marketing philosophy [...]. As a type of marketing, it is like industrial or services marketing and is concerned with marketing of a specialised kind of product i.e., green products […]. As a philosophy, Green Marketing runs parallel to the societal marketing concept and espouses the view that satisfying customers is not enough, and marketers should consider ecological interests of the society as a whole"	Jain and Kaur, 2004, p. 170
"Sustainability marketing is defined as the building and maintaining sustainable relationships with customers, the social environment and the natural environment"	Belz and Peattie, 2009 [in Kumar et al., 2013, p.605]
""Green Marketing" refers to holistic marketing concept wherein the production, marketing consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, nonbiodegradable solid waste, harmful impact of pollutants etc."	Mishra and Sharma, 2012 p.35
Green Marketing is the "marketing of products that are presumed to be environmentally safe"	American Marketing Association [in Mishra and Sharma 2012, p. 35]
"Eco-marketing is a component of the new marketing approaches which refocus, amend, and improve existing marketing philosophy and practice, offering a considerably dissimilar perspective. Eco-marketing belongs to an assembly of approaches which try to make reconciliation between the lack of fit between marketing as it is presently practiced and the ecological and social realities."	Gheorghiu et al., 2013 p. 373
Definitions compiled by Groening et al. (2018)	**Authors**
"Green marketing, which seeks to bring the activities of firms into a new and more harmonious relation with the environment." (p. 3)	Stanton (1987)
"Green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising… such that the satisfaction of these need and wants occurs, with minimal detrimental impact on the natural environment." (p. 1–2)	Polonsky (1994)
"Green marketing refers to marketing practice which is characterized by a demonstrable concern for the environment within which this practice occurs and upon which it impacts, as well as for its various stakeholders." (p. 624)	Walker and Hanson (1998)
"Green marketing is the practice of adopting resource conserving and environmentally-friendly strategies in all stages of the value chain." (p. 239)	Oyewole (2001)
"Green marketing typically emphasise the efficiency of cognitive persuasion strategies, assuming the consumer's high involvement regarding environmental issues to be a consequence of a growing environmental consciousness." (p. 676)	Hartmann and Apaolaza Ibáñez (2006)
"Green marketing is conducting all marketing activities within a framework of environmental responsibility… is a comprehensive and systematic process that seeks to influence consumer preferences in a way that encourages them to demand	Alsmadi (2007)

environmentally friendly products and help them adapt their behavioural consumption patterns accordingly." (p. 342–345)	
"Green marketing is a strategic process involving stakeholder assessment to create meaningful long-term relationships with customers while maintaining, supporting, and enhancing the natural environment." (p. 23)	Pride (2008)
Green marketing is 5Ps + EE, standing for planning, process, product, promotion, people, and eco-efficiency. (p. 1344–1347)	Violeta and Gheorghe (2009)
"Green marketing is beyond the role of linking to green customers and marketing mix and should expand to include other aspects of corporate demand management, such as predicting demand for environmentally-friendly products, positioning and demand stimulation for recycled and remanufactured products, generating demand for build-to-order products, and building competitive advantages from a focus on environmental priorities" (condensed from p. 338–341).	Sharma et al. (2010)
"Scholars define green marketing using a range of terms (e.g., green marketing, ecological marketing, environmental marketing, and even responsible marketing). These definitions have a common focus on the exchange process (i.e., choices and decisions), with a proviso that exchange considers and minimizes environmental harm." (p. 1311)	Polonsky (2011)
"Green marketing identifies and satisfies green customers and promoting environmentally-friendly products." (p. 581)	Liu et al. (2012)
"Green marketing refers to marketing practices, policies, and procedures that explicitly account for concerns about the natural environment in pursuing the goal of creating revenue and providing outcomes that satisfy organizational and individual objectives for a product." (p. 153)	Leonidou et al. (2013)
"Green marketing consists of actions directed to all consumers and incorporates a broad range of marketing activities (e.g., planning, process, production, promotion, and people) designed to demonstrate the firm's goal of minimizing the environmental impact of its products and services."	(Groening et al., 2018)
Definitions compiled by both studies (Dangelico and Vocalelli, 2017; Groening et al., 2018)	**Authors**
Sustainable Marketing is "the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are attained, and (3) the process is compatible with eco-systems"	Fuller, 1999

Source: own elaboration from Dangelico and Vocalelli (2017) and Groening et al. (2018).

Taking Table 4 as a reference, there are two types of approaches to the concept of Green Marketing: those that define marketing as part of the company and those that have a more general concept affecting into society. The first group refers to the process of Green Marketing in business, or in organizations (Fuller, 1999; Leonidou et al., 2013), when managing environmentally friendly value propositions (Polonsky, 1994; Lampe and Gazda, 1995; Walker and Hanson, 1998; Oyewole, 2001; Prakash, 2002; Hartmann and Apaolaza Ibáñez, 2006; Alsmadi, 2007; Pride, 2008; Violeta and Gheorghe, 2009; Sharma et al., 2010; American Marketing Association [in Mishra and Sharma 2012]; Liu et al., 2012; Groening et al., 2018). In this group, in the first definitions it could be appreciated the role of Green Marketing in case of environmental problems/causes, but not towards the environment care in general (Henion and Kinnear, 1976; Stanton, 1987). In the second group, the concept has been seen as a philosophy, where the entire marketing process and its general ecological impact and interest in society are holistically encompassed (Peattie, 1995; 2001b; Belz and Peattie, 2009; Polonsky, 2011, Mishra and Sharma, 2012; Gheorghiu et al., 2013;), more similar to AMA's latest definition (2017). Jain and Kaur (2004) contemplated both points of view in their definition.

4.3. Green marketing status in today's marketing approaches

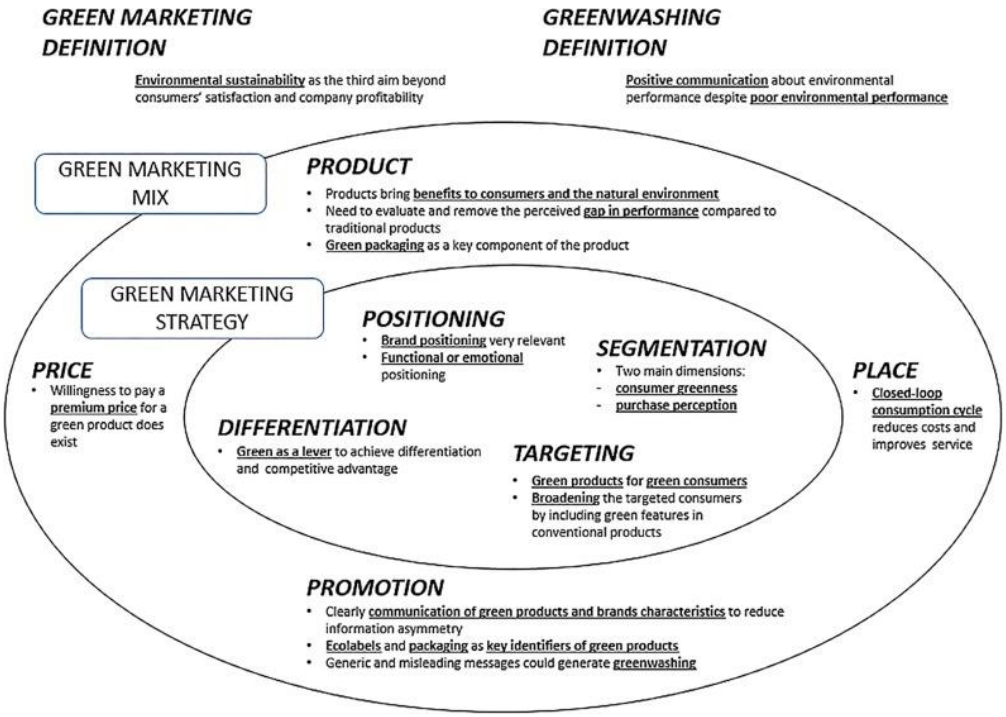
Today, marketing must be understood in the context of information technology, which allows access to big data and more personalized information. Parallel to information revolution, the service revolution is also taking place. The expansion of service sector is irreversible and do not fit into the rigid framework of goods-based concepts like the 4 Ps. Marketing is evolving toward a more customer centred, and relationship driven approach rather than transaction driven, mass market and standardization centred. Therefore, marketing needs to move away from the conception based on goods, toward a marketing more based on relationship- and services (Rust and Huang, 2014).

Moreover, following Kotler (2020), marketing is intrinsically a value-creating discipline. Marketing, then, is based on the creation, delivery, and communication of value. The 4 ps product and price pillars are included in value creation; your goal is to choose product features and services that will generate value and prices to generate value in return. Value delivery meets with place 4 ps pillar; its goal is to choose channels of distribution to create accessibility and convenience value. Finally, the communication of value is found with the promotion of the 4 ps pillar; your goal is to send messages that describe the value of your offer.

Regarding Green Marketing, it can be seen below that a change of approach from marketing from the 4 ps marketing to service and value-creation. The literature has focused on creating frameworks based on 4 ps and testing which 4 ps pillar is more relevant in Green Marketing, as can be seen above.

In last 20 years there are various authors who have spoken about the topic. Polonsky and Rosenberger III (2001) and Ginsberg and Bloom (2004) discussed about green strategies and tactics with very direct managerial implications; the last authors stated a theoretical hypothesis that green image could lead to consumer affinity, causing brand loyalty to grow. Lampe and Gazda (1995) studied US and European firms and found that, in general, Green Marketing is focused on Product (packaging, labelling), and Promotion (green claims), placing Price and Place second. Davari and Strutton (2014), to close the gap between green consumers pro-environmental beliefs and behaviours analysed the relationship between green marketing mix and 'green' consumer-based brand equity in food sector. There was a significant relationship which reveals Green Price and Green Promotion were negative related and were the only ones affecting brand trust. Esmaili and Fazeli (2015) stated that the Green Product is the most important element of the mix, because the goal of ecological products is to directly reduce pollution. The second important element is Price; it is usually higher than conventional products and only if Green Products add value, consumers will be WTP more. Finally, even in recent studies a marketing mix approach cab ne seen: Figure 1 is a synthesis by Dangelico and Vocalelli (2017), taking the general marketing framework by Kotler and Armstrong in 2014.

Figure 1. Green Marketing scope



Source: Dangelico and Vocalelli (2017).

The facts described in Figure 1 are relevant to Green Marketing: Green Products, specially labelling and packaging (Esmaili and Fazeli, 2015; Lampe and Gazda, 1995); Green Price, with WTP more for green products as a key driver (Esmaili and Fazeli, 2015); and Green Promotion (Lampe and Gazda, 1995).

Although it is true that these facts constitute a valid framework for Green Marketing,the 4 ps vision of marketing does not correspond to the current post-industrialized society (Lusch and Vargo, 2014). New approaches need to be instituted according to up-to-date definitions of marketing science –service-based marketing by Rust and Huang (2014); value creation marketing by Kotler (2020); or even avant-garde approaches such as Service Dominant Logic co-creation process by Vargo and Lusch (2014)–. So, new approaches applied to Green Marketing are the subject of future research.

4.4.Conclusions

Conclusions in this first section have been summed up to respond to Green Marketing research objective, where it is foreseen to analyse the evolution and conception of Green Marketing, as well as to present Green Marketing status regarding updated conceptualizations in marketing science.

- Nowadays there is still a way to go not only in companies, but in society in general to reach a fully sustainable economy as Peattie (2001a) defined as the Third Age. Therefore, it is still necessary to define Green Marketing (Dangelico and Vocalelli, 2017), considering, if possible, AMA's latest definitions (2017).
- There are two types of approaches to define Green Marketing: as a process controlled by companies and as a more general process affecting into society. First definitions might be useful for managerial implications, whereas second definitions, seen as a philosophy, might be useful to rethink society and sustainable economy.

- A change of approach from old-fashion 4 ps marketing to new approaches according to up-to-date definitions of marketing science –service-based marketing by Rust and Huang (2014); value creation marketing by Kotler (2020); or even vanguard approaches such as Service Dominant Logic co-creation process by Vargo and Lusch (2014)–. Green Marketing definitions must contemplate new approaches. Then, new approaches applied to Green Marketing are subject to future research, which could be beneficial to contribute the attitude-behaviour gap.

In following section, a revision of Green Consumer Behaviour to accomplish this second objective will take to solve why consumers buy green products, their boundary conditions and influences and theories applied.

5. GREEN CONSUMER BEHAVIOUR

5.1. The green consumer

Green Consumer Behaviour research focus primarily on consumer profiling and segmentation, product and its disposal, purchase warrant factors, decision-making process, and WTP (Peattie, 2001b). Both studies by Peattie (2001a, 2001b) emphasized that there should be a distinction between both green consumer and purchaser, because Green Marketing is mostly related to the green purchaser, although little research has been done about it. Green purchaser differentiation could be the subject of future research to contribute to the attitude-behaviour gap.

The consumer is the focal point of green marketing, as their acceptance of green products depends on their choices (Narula and Desore, 2016). Green consumer is the consumer who tend to avoid products that endanger health, and harm the environment in its production, disposal, consumption of energy, material and over-packaging, and the nature in general (Peattie, 2001a). In other words, green consumers are characterised by consuming products with the maximum respect for the environment (Afonso et al., 2018).

Afonso et al. (2018) identified five segments, ranging from 'True Green Consumers' with the greenest behaviour, to 'Apathetic Consumers' with no interest at all in environment. As mixed segments there are 'Ecologically Concerned Consumers', closer to the greenest ones, 'Moderately Green Consumers' and 'Occasional Green Consumers', the last ones closer to the non-green ones.

Narula and Desore (2016) highlighted that green consumers are confused consumers. This is because there is a low awareness and general knowledge about green products, not to mention the lack of offer part efforts. Then, widespread environmental awareness has an important role in purchasing behaviour (Afonso et al., 2018). To reduce green consumers confusion, White et al. (2019) stated that sustainability is an abstract concept that should be grounded to consumers adding tangibility. The abstraction problem of sustainability could be improved through tangibility by: matching temporal focus and short-term goals, although sustainability requires long-term conception; communicating self–other trade-off, since consumers need to see benefits; making collective environmental actions because collectivism works as a compelling motivator, for example, communicating proximity positive impact; encouraging the desire for intangibles, like 'sharing economy', dematerialization and experience marketing, and controlling automatic unsustainable practices. Positively, consumers are moving towards greener products (Afonso et al., 2018; Narula and Desore, 2016; Sharma, 2021).

Other issue to highlight in green consumer is the "attitude–behaviour gap", where most consumers declare their support for the environment, but their behaviour does not match. In other words, there is a discrepancy between what consumers say and do (Ketelsen et al., 2020; White et al., 2019). Among the main barriers are price, availability, and quality (Ketelsen et al., 2020). Until now, no study has specifically discussed in detail the attitude-behaviour gap of green consumer because consumer behaviour remains highly complex and complicated to understand. Therefore, the attitude-behaviour gap still needs future research (Sharma, 2021).

In the following part there is going to be shown the theories used in Green Consumer Behaviour literature to understand green consumer process.

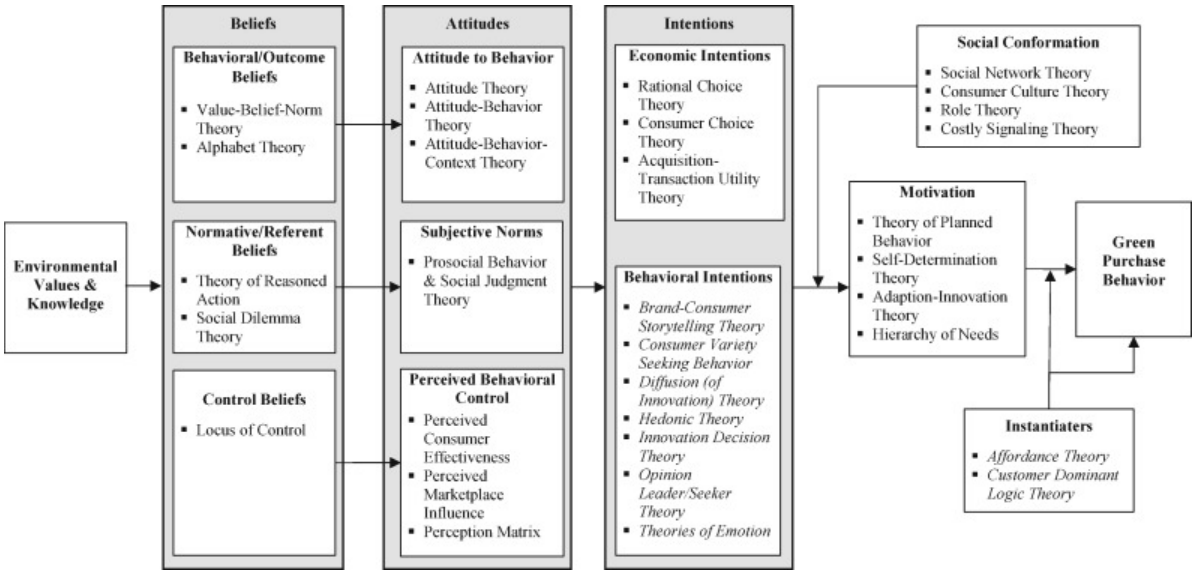
5.2.Green Consumer Behaviour Theories

Green Consumer Behaviour theories are formed transversally by varied disciplines such as psychology, economics,philosophy, management, marketing, and others (Zhang and Dong, 2020). In this study we are utilizing the individual-level consumer theories compiled by Groening et al. (2018) and Zhang and Dong (2020) in both literature reviews on Green Marketing.

Common theories

Groening et al. (2018), in Figure 2, categorized the theories into six categories: values and knowledge, beliefs, attitudes, intentions, motivations, and social dimensions. Theories about values and knowledge, beliefs, and attitudes are in the left of Figure 2, whereas other theories trying to explain why attitudes do not directly result in green purchase behaviour are in the right.

Figure 2. Theories in Green Consumer Behaviour



Source: Groening et al., (2018).

This study took the Table 5 of theories explanation of Groening et al. (2018) and adapted their format to identify the different variables bonds present in this range of theories. Authors mentioned are from Groening et al. (2018) compilation. Other theories collected from other authors has been included, for example, literature reviews from Ketelsen et al (2020) and Zhang and Dong (2020), among others. There are also some statements not still concluded from which may arise new hypotheses for future research.

Table 5. Theories in Green Consumer Behaviour

Theory	Definition	Green marketing variables		Bond
		Independent	Dependent	
Values and Knowledge				
Values	Values are determinant in especial situations since they are a measurable set of standard, attitudes, or beliefs (Schwartz, 1992).	Self-interest, social altruism, biospheric altruism.	Green consumption (GC)	(+) [1]

		Self-transcendence, openness, universalism; Self-enhancement, conservation.	Green consumer behaviour (GCB)	(+) [2]
			Green purchase behaviour (GPB)	(-)
Knowledge	Knowledge is a mix of beliefs (subjective) and facts (objective) (e.g., Pickett-Baker and Ozaki, 2008).	Green knowledge	GPB	(+) [3]
		Objective environmental knowledge	GPB	May not (+) [4]
		Product specific knowledge	GPB	(+) [5]
		Knowledge	Green product decision making	May not significant [6]
		It happens that some green consumers have less green knowledge than non-green consumers [7]		
	Norm Activation Model	Consumers' personal norm is activated when consumers are aware of the adverse consequences and their responsibility. It directly affects green consumer behavior. [42]		
Beliefs				
Value-Belief-Norm (VBN) Theory	The relationship between values and norms is mediated by beliefs (Stern et al., 1993).	Consumer scepticism of companies environmental claims	GCB	(-) [8]
		Individualism/collectivism	Environmental attitude and commitment	Antecedents [9]
Theory of Reasoned Action (TRA)	Aims to explain how human acts by the relationship between attitudes and behaviors (Fishbein and Ajzen, 2011, Osterhus, 1997).	Environmental knowledge; cultural norms; subjective norms, environmental concern	Green Purchase Intention (GPI)	(+) [10]
		Environmental beliefs	Green purchasing attitudes (GPA)	Environmental norms mediate [11]
Locus of Control (LoC)	LoC has two dimensions; internal, where individuals believe their actions affect outcomes; and external, where individuals believe outcomes are beyond their individual-level of control (Kalamas et al., 2014).	Four dimensions of environmental LoC: two external dimensions, which are biospheric-altruism and corporate scepticism; and two internal dimensions, which are economic motivations and individual recycling efforts. [12]		
Social Dilemma Theory (SDT)	How much consumers believe their green behaviours will make a positive impact into environment (Gleim et al., 2013).	Environmental consequences are not perceived by consumers, therefore, they do not willing to pay more for green choices. [13]		
		Acknowledgement of future consequences	GPB	May not (+) significant; impact of purchase moderates [14]
Perceived Consumer Effectiveness (PCE)	PCE is about consumers' confidence in being able to bring about positive outcomes that are perceived socially positive. It affects in green consumption (Roberts, 1996) or purchase of green products (Balderjahn, 1988, Lee et al., 2014).	PCE	Support for government environmental regulation	(-) [15]
		Effect of green altruism; impact of media attention	GPI; consumer preference for green products	PCE mediates [16]

Perceived Marketplace Influence (PMI)	PMI explains consumer's perception about their influence in a marketplace behaviour.	Environmental concern	GCB	PMI mediates [17]
Perception Matrix	Two dimensions affect green purchasing perceptions: 1) the degree of confidence that the product offers environmental benefits to real problems, and 2) compromises (e.g., price premiums, lower performance, and channel availability) (Peattie, 1999).			
Alphabet Theory	Alphabet theory is a combination of multiple individual consumer theories: Value-Belief-Norm theory (VBN), Attitude-Behaviour-Context theory (ABC), Knowledge (K), Information Seeking (IS), Context (C), Habits (H), and Demographics (D) (Zepeda and Deal, 2009).	Factors influencing green purchasing. [18]		
Attitudes				
Attitude and Attitude-Behaviour (AB) Theory	Environmental attitudes are formed through beliefs, concerns, values, and intentions (Park et al., 2014, Schultz et al., 2004).	General attitudes of environmental concern	Specific behaviours	Do not predict [19]
Attitude-Behaviour-Context (ABC) Theory	The context mediates the relationship between attitude and behaviour (Peattie, 2010, Stern, 2000)	Attitude toward a specific environmental behaviour is better predicting future behaviour than the environmental issue as such. It is difficult to generalize. [20]		
Prosocial Behaviour and Social Judgment Theory	Consumers feel good when collaborating with altruism organizations (Mohr et al., 2001). Green product purchasing, and intentions determine green consumer behaviour (Cervellon, 2012).	Greater public accountability	GC	(+) [21]
		Greater social relationships	Green hotel booking	(+) [22]
		Consumer behaviour is determined by green product purchasing and intentions. [23]		
Intentions				
Consumer Choice Theory (CCT) and Rational Choice Theory (RCT)	Individuals seek benefit maximization by their rationality. Individuals' consumption behaviour is influenced by cost preference and institutional constraints (Groening et al., 2018).	Consumer preference, reference groups, and the perceived social standing	GCB	(+) [24]
		Budget constraints and social responsibility consciousness	Green choices	(-)
		Individual preference for forest carbon offsets is associated with cognitive, ethical, behavioural, geographical, and economic factors. [25]		
		Green consumption choices are consistent with utility maximization. Consumption behaviour of reference people and past consumption behaviour enhance utility maximization's role. [26]		
		Green price	GC	(-) [27]
Acquisition-transaction utility theory (ATUT)	Individuals assess products by references coming from information available and past experiences and the perception of the product utility (Thaler, 1983).	Purchase utility (composed by price, perceived quality, and psychological benefit)	Buying recycled Products	(+) [28]
Motivations				
Theory of Planned Behaviour (TPB)	TPB is a rational choice model where intention and beliefs are linked to behaviour (Ajzen, 1991).	Perceived behavioural control, positive attitudes, and a high positive subjective norm	Green Behaviour (GB)	(+) [29]
		TPB is used to explain that perceived behavioural control and subjective norms may vary across cultures		

Self-determination theory (SDT)	SDT aim to frame motivation and personality, toward active engagement and development in social contexts (Groening et al., 2018).	Extrinsic motivation including economic benefits and increased social reputation (vs intrinsic motivation)	GB	(+)
		Lack of motivation due to individual scepticism and cynicism (e.g., perceived uncertainties in green product efficacy)	GC	(-)
Adaptation-innovation Theory (AIT)	There are different consumers options due to their degree of adaption of innovation (Groening et al., 2018).	Innovators (vs Adapters)	GPB	(+) [30]
		Innovators	Loyal relationships with a specific product or brand behaviour	May not (+) [31]
		AIT is used to explain differences in green products' acceptance across cultural groups. [32]		
Hierarchy of Needs	Micro-level model that identifies five levels of individual's needs by Maslow: physiological, safety, belongingness, esteem, and self-actualization (Groening et al., 2018; Narula and Desore, 2016).	Economic well-being and class position	Environmental concerns	(+) [34]
Social Confirmation				
Consumer Culture Theory (CC theory)	CC theory frame the relationship among the marketplace, cultural factors, and consumer behaviour (Arnould and Thompson, 2005).	Materialism	Green tendencies	Global cultural identity moderates (+) [34]
Role Theory	Social positions are important for humans. They have expectations (Biddle, 1986) from their environment and themselves.	Female gender (vs male)	Environment awareness, WTP for environmental products	(+) [35]
		Attitude	Pre-environmental behaviours	Female gender (vs male) moderates (+) [36]
		Green product consumers (vs non-consumers)	Pro-environmental behaviours	Different behaviour [37]
Costly Signalling Theory (CST)	Individuals will communicate their WTP or ability to pay more to enhance their social status (Miller, 2011).	Green behaviour	Cost	May (+) [38]
		Situational factors including message detection and utilization, product visibility, purchase visibility, relative price, message detection, and utilization	Narcissistic tendencies through green purchases	(+) [39]
		Status competition	GCB Promotion	can be (+) [40]
		Pro-organic behaviour	Status, convictions to behave more positively toward the signal sender	(+) [41]
	Signalling Theory [43]			
	Cue Utilization Theory [44]			

Social Network Theory (SNT)	Society works by networks of individuals relationships (Scott, 1991).	In Green Marketing, companies are central nodes, but consumer-to-consumer relationships are a significant gap in the current literature (Groening et al., 2018).
Theory of Consumer Socialization	How consumers socialize, but only takes social variables such as age, gender, and education, and socialization agents of family, peer, and media. [45]	

Authors from Groening et al. (2018):

[1] (Eagly and Chaiken, 1993)
[2] (Karp, 1996)
[3] (e.g., Pickett-Baker and Ozaki, 2008).
[4] (e.g., Vicente-Molina et al., 2013)
[5] (Martin and Simintiras, 1995)
[6] (Wang and Hazen, 2015)
[7] (Laroche et al., 2002)
[8] (Albayrak et al., 2011)
[9] (Cho et al., 2013)
[10] (Polonsky et al., 2012); (Chan, 2001); (Smith and Paladino, 2010)
[11] (Gadenne et al., 2011)
[12] (McCarty and Shrum, 2001)
[13] (Peloza, 2006)
[14] (Ebreo and Vining, 2001); (Joireman et al., 2004)
[15] (Ellen et al., 1991)
[16] (Lee et al., 2014); (Thøgersen, 2006)
[17] (Leary et al., 2014)
[18] (Testa et al., 2016)
[19] (e.g., Bamberg, 2003)
[20] (Fielding et al., 2008)
[21] (Green and Peloza, 2014)
[22] (Gao and Mattila, 2016)
[23] (Cervellon, 2012)
[24] (He et al., 2015)
[25] (Torres et al., 2013)
[26] (Welsch and Kühling, 2011)
[27] (Abaidoo, 2010)
[28] (Bei and Simpson, 1995)
[29] (Albayrak et al., 2011)
[30] (Bhate and Lawler, 1997)
[31] (Foxall and Bhate, 1993)
[32] (Bhate, 2002)
[33] (Leonidou et al., 2015, Van Kempen et al., 2009, Wong and Wan, 2011)
[34] (Strizhakova and Coulter, 2013)
[35] (Han et al., 2009)
[36] (Wai and Bojei, 2015)
[37] (Runyan et al., 2012)
[38] (DiDonato and Jakubiak, 2016)
[39] (Naderi and Strutton, 2014)
[40] (Griskevicius et al., 2010)
[41] (Puska et al., 2016)

Other authors not in Groening et al. (2018):

[42] (Schwartz, 1977) in Zhang and Dong (2020)
[43] (Spence, 1973, Stigler, 1961) in Ketelsen et al. (2020)
[44] (Olson and Jacoby, 1972) in Ketelsen et al. (2020)
[45] (Muralidharan et al., 2016) in Taufique and Vaithianathan (2018).

Source: own elaboration from Groening et al. (2018).

It is interesting that of 37 relationships found in the theories, the most used dependant variable is the Green Purchase Behaviour (GPB) (Karp, 1996; Bhate and Lawler, 1997; Martin and Simintiras, 1995; Ebreo and Vining, 2001; Joireman et al., 2004; Fielding et al., 2008; Pickett-Baker and Ozaki, 2008; Vicente-Molina et al., 2013; Naderi and Strutton, 2014; Testa et al., 2016); and as independent (Cervellon, 2012). Zhang and Dong (2020), in their literature review, also considered Green Purchase Behaviour (GPB) as a dependent variable. Then, Green Purchase Intention (GPI) as dependent variable (Chan, 2001; Thøgersen, 2006; Smith and Paladino, 2010; Polonsky et al., 2012; Lee et al., 2014); and as independent (Cervellon, 2012). Green Consumer Behaviour as dependent variable (GCB) (Karp, 1996; Albayrak et al., 2011; Leary et al., 2014; He et al. 2015); and as independent (DiDonato and Jakubiak, 2016; Puska et al., 2016). Green Consumption (GC) as dependent variable (Schwartz, 1992; Abaidoo, 2010; Green and Peloza, 2014; and mentioned by Groening et al., 2018). Interestingly, Green Purchase Attitude (GPA) works better as an independent variable (Ellen et al., 1991; e.g., Bamberg, 2003; Fielding et al., 2008; Albayrak et al., 2011; Wai and Bojei, 2015) rather than dependent (Gadenne et al., 2011; Cho et al., 2013). Finally, other lees are analysed, such as Consumer Preference for Green Products as dependent (Thøgersen, 2006; Lee et al., 2014), and as independent (He et al., 2015; Torres et al., 2013); and Consumer Purchase Perception, only as a dependent variable (Ellen et al., 1991; Bei and Simpson, 1995; Peattie, 1999; Leary et al., 2014).[1]

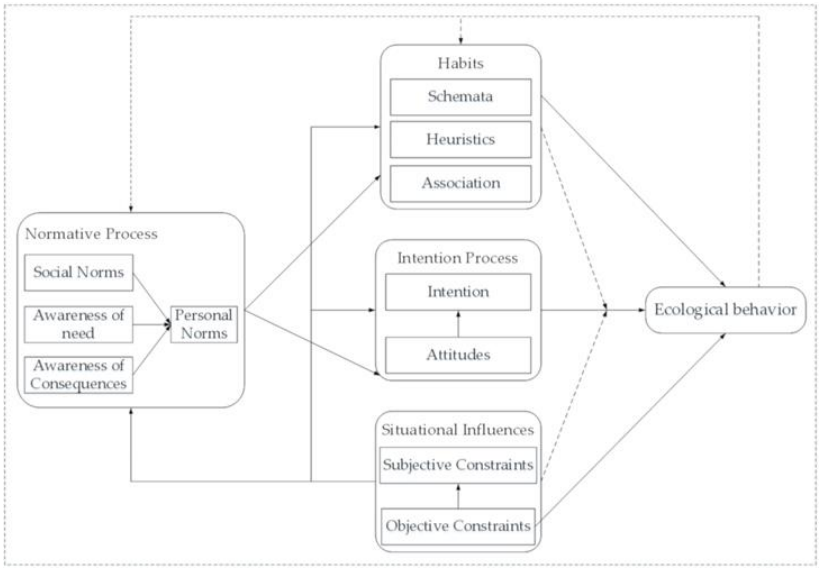
[1] Authors cited in this paragraph could be found in Groening et al. (2018).

The most frequent theories are Theory of Planned Behavior (TPB) (Ketelsen et al., 2020; Taufique and Vaithianathan, 2018; Zhang and Dong, 2020), Value–Attitude–Behavior Model (VAB) (Zhang and Dong, 2020), the Attitude–Behavior–Conditions Model (ABC), and Value–Norm–Belief Theory of Environmentalism (VBN) (Zhang and Dong, 2020). All of them are considered before. The researchers felt free to add new variables and build their frameworks from these models to get better contributions (Zhang and Dong, 2020), for example, with TPB (Taufique and Vaithianathan, 2018).

Zhang and Dong (2020) noted that most of the theories (TPB, VAB and VBN) considered the psychological factors as independent variables affecting GPB and attitudes. Unlike the others, theories such as ABC consider external and internal factors impacting GPB, while others not specific, affirm that these external factors are moderators between the individual factors and GPB.

Having seen the most common models, Zhang and Dong (2020) created what they called a "More Comprehensive Research Model" as an expansion and for Green Consumer future testing. This model took rational thinking in decision making by TPB; the influence of the value by VAB and personal norms in VBN and Norm Activation Model (NAM); and the combination of external and internal factors by ABC. They also added other variables: habit and situational influences, as can be seen in Figure 3. However, the theories studied in the food category are TPB, VAB and ABC, excluding VBN, NAM, habit, and situational influences factors. It assumes that this model should to be tested in the food category in the future.

Figure 3. Integrated Model by Zhang and Dong (2020)



Source: Zhang and Dong (2020).

Other theories to test in future research

Groening et al. (2018) also contemplate in Table 6 other theories with new approaches to explain the behaviour of the green consumer. They divided the theories into two groups: "behavioural intentions" and "instantiaters". The first group aims to determine the relationship between non-economic intentions into green purchasing. While the last group look for new possibilities moderating motivation and green purchasing bond. The authors mentioned are from Groening et al. (2018) compilation. New approaches

collected from other authors such as Narula and Desore (2016) have also been included. All the following approaches are subject to future research.

Table 6. Other theories yet to apply

Theory	Definition	Green marketing variables	
		Independent	Dependent
Behavioral Intentions			
Brand-consumer storytelling theory	Since human beings use stories to memorize, brands and products are remembered by linked stories and associations.	Effectiveness of storytelling	Green product promotion [1]
		Visual storytelling art	Green packaging [1]
Consumer variety seeking behaviour (CVSB)	Consumers look for variety in their choices	How consumers behave when they look for variety in green services and products? [2]	
		Green factors measurement in CVSB	Green products [2]
		Variety seeking measurement and reinforcement behaviours	Green consumption encouragement
		Consumers prefer products with varied green attributes instead of single green attributes.	CVSB variation
		CVSB can explain why consumers switch a green brand for other green brand, i.e., this change might bring satisfaction.	
		CVSB model might be applied to identify bonds among competing products (green and non-green ones)	
		CVSB might be applied into cultural analysis about green marketing in a global scale.	
Diffusion (of innovation) theory	Consumers need different time of adoption of an innovation or technology. There are different actors/stages: innovators, early adopters, early majority, late majority, and laggards.	Which factors?	Diffusion of green innovations into consumers
		Diffusion theory might be applied to explain successive generations of green products.	
		Green consumption	To explain green behaviour change. [3]
Hedonic Theory	Consumers feel happiness and well-being through pleasure attainment and pain avoidance. This theory focusses on those feelings when purchasing.	Hedonic theory might be applied to explain green WTP. Integration this theory to analyse green consumer behaviour. Hedonic theory and affordance theory might be applied to green product design. [4]	
Innovation decision theory	Consumers pass through five stages when deciding to adopt an innovation: knowledge, persuasion, decision, implementation, and confirmation.	Consumers factors about green innovation. [5]	
		Are there differences between green innovation adopters and non-green innovation adopters? [5]	
Opinion leader/ seeker theory	Opinion leaders have a significant influence in consumption process.	Word-of-mouth marketing role in both online and offline.	Green products [6]
		Integration of opinion leader and seeker theories with diffusion of innovation theory.	
		Integration of opinion leader theory with role theory to create a framework in green marketing.	

Theories of Emotion	Emotional experiences are present in consumer behaviour.	What do green consumers perceive as self-motivators? [7]	
		Emotional experiences	Green purchase Behaviour
		How long do the effects of emotion on green purchase behaviour last?	
Comprehensive Action Determination Model	Incorporates intentional, normative, situational, and habitual influences on environmentally friendly behaviour from TPB and NAM to predict Green Behaviour. [11]		
Hierarchy of Effects model	Originally by Lavidge and Steiner, 1961, it assumed that consumers undergo the stages of awareness, knowledge, liking, preference, conviction and purchase in a stepwise order. The new addition is that they could occur at the same time. [8]		
Instantiaters			
Affordance theory	Environment significantly affects consumer behaviour. Therefore, an affordance is a precondition of an available activity for an actor in an environment.	What are the affordances in green consumption?	Sales [9]
		Perceived green technology affordances	GCB [9]
Customer dominant logic theory	Value is co-created by different actors to satisfy their needs.	Role of Service Dominant Logic	GCB [10]
		Integrating Service Dominant Logic	Green value chain management [10]
		Consumers as green co-creators.	
		Integrating Service Dominant Logic	Green initiative effectiveness
Resource advantage theory	Sustainability might be a competitive advantage in any marketing strategy.		

Authors from Groening et al. (2018):

[1] (Schank, 1999; Woodside et al., 2008)

[2] (Farquhar and Rao, 1976; Vermeir and Verbeke, 2006)

[3] (Norton and Bass, 1987; Doshi and Ratcliff, 2016)

[4] (Lerman and Kern, 1983; Ryan and Deci, 2001)

[5] (Rogers, 1983; Reinders et al., 2010)

[6] (Chaney, 2001)

[7] (Weiner, 1985)

[8] (Grunert and Wills, 2007; Grunert, 2011) in Ketelsen et al. (2020).

[9] (Shaw and Bransford, 1977; Gibson, 2014)

[10] (Drucker, 1974; Lusch and Vargo, 2014)

Other authors not in Groening et al. (2018):

[11] (Klöckner and Blöbaum, 2010) in Zhang and Dong (2020)

[12] (Crittenden et al., 2011) in Narula and Desore (2016)

Source: own elaboration from Groening et al. (2018).

From Table 6, there could be seen 4 ps logic is very present. The most frequent variable is Green Product, which has been seen as a dependent variable (Farquhar and Rao, 1976; Chaney, 2001; Vermeir and Verbeke, 2006), where packaging attribute is the most relevant (Schank, 1999; Woodside et al., 2008). Then, Promotion as a dependent variable (Norton and Bass, 1987; Schank, 1999; Woodside et al., 2008; Doshi and Ratcliff, 2016). Transformation of Green Behaviour is also observed as a variable dependent

(Norton and Bass, 1987; Doshi and Ratcliff, 2016). Finally, it has been seen, also as a dependent variable, Green Purchase Behaviour (Weiner, 1985). [2]

Having seen the theories applied in Green Consumer Behaviour, in the following part there is going to be shown a list of factors used in Green Consumer Behaviour literature to understand green consumer.

5.3. Green Consumer Behaviour influencing factors

This section describes Green Behaviour factors to catalogue the different types of green consumers, their drivers and barriers. As an overview, Zhang and Dong (2020) brought three factors' groups: individual factors, product and marketing factors, and social factors. Psychological and sociodemographic factors, as well as lifestyle, experience, and habits, are within the group of individual factors. In product and marketing factors group, factors such as packaging, eco-labels, and communication channels can be found. Lastly, the group of social factors includes social norm (structure, cultural background) and social capital (media, place identity) (Zhang and Dong, 2020).

All the factors could be seen in Table 7, whose objective is to collect the factors that influence Green Behaviour. They act as independent variables influencing Green Consumer Behaviour, which works as dependent variable. Green Consumer Behaviour should be considered as a comprising factor, since the cited studies did not always refer to Green Consumer Behaviour as such, calling it eco consumer, green purchase, environmentally friendly purchase intention and others. The meanings of these factors are also described if they have been tested. The results could be of positive significance with Green Consumer Behaviour (+); negative (-); not conclusive, meaning there is no consensus on the significance degree; contradictory, meaning there is no consensus on the significance valence; or simply not described. Not conclusive, contradictory, or not described factors conclusions are subject to future research.

Two limitations have been found in Table 7. First, the factors could be repeated because different names could have the same meaning depending on the authors; the names of the factors should be unified in future research. Second, the studies cited are not always focus specifically on food and could apply to any category.

Table 7. Green Consumer Behaviour influencing factors

Independent variables		Conclusions about significance	
Individual factors group			
Sociodemographic Factors	Gender	Not conclusive	Women greener than Men [1]
			Men greener than Women [36]
			Deeper environmental knowledge in Men; more environmental quality in women [2]
			No significant effect (as mediator) [3]
	Age	Contradictory	(+) [4]
			(-) [5]
			Not significant [35]
			People aged 35–49 greener. People younger than 19 years old are not green [6]
	Income	Not conclusive [8]	(+) [7]
	Education	Not conclusive	(+) [9]

[2] Authors cited in this paragraph could be found in Groening et al. (2018).

		(-) [10]
		Not significant [37]
Psychographic Factors	Environmental concern	(+) [11]
	Perceived consumer effectiveness	(+) [12]
	Personal norms	(+) [47]
	Materialism	(-) [47]
	Altruism	(+) [13]
		Not conclusive if high price. Somehow related to collectivism [14; 28].
Psychological Factors: Attitude, Awareness, Beliefs, Values, Norm, Perception	Attitude [20]	Attitude toward the environment (+) [15]
		Attitude to products (+) [16]
		Green purchase attitude (+) [40]
	Ecological literacy [20]	(+) [17]
	Awareness of green products [20]	(+) [18]
	Credibility	(+) [19]
	Creativity	(+) [47]
	Awareness of environment, Confidence, Eco-literacy, Emotions, Perceived behavior control, Subjective/Moral norm, WTP premium, Expectation, Health consciousness, Self-identity, Self-image [20]	
	Green consciousness / knowledge / awareness	(+) [38]
	Past purchase experience	(+) [21]
	Feelings and emotions [34]	
	Green purchase intention and trust [41]	
Habits, Experiences, Lifestyle	Face/Status consciousness, Green involvement, Interpersonal differentiation, Past purchase experiences, Knowledge of environment, Health status, Healthy life habits [22]	
	Product Attributes and Marketing group	
Product attributes	Availability/Accessibility, Energy and Material, Product attributes, Perceived risks/trust, Product price, Origin, Impact on society [23]	
	Packaging [23]	(+) [30]
	Recycling potential, low pollution and economy of resources [31]	
	Functional value	(+) [47]
	Value for money	(+) [47]
Marketing	Message credibility, Advertisement, Green certification, Mass media, Marketing influence, Green word-to-mouth	May be (+) [24]
	Eco-label [24]	So important that premium price does not moderate (+)[25]
	Greenwashing related to message credibility and advertisement	(-) [26]
	Sales channels, Promotions, Store environment, Friendly employee behaviour [39]	
	Green Promotion	(+) [42]
	Innovativeness	Not conclusive [43]
	Green branding	(+) [44]
	Green supply chain management [45]	
	Green Pricing	(-) [46]
	Social Influence group	
Social norm	Social norm, Culture, Organization [27]	
	Peer Influence/opinion [27]	May be (+) [33]
	Collectivism	(+) [28]
	Social value	Not significant [47]
Social capital	Social capital, Media, Place identity [29]	
	Social media [29]	(+) [32]

[1] Compiled by Afonso et al. (2018): (Do Paço et al., 2009; Memery et al., 2005; Ottman & Reilly, 1998). Compiled by Zhang and Dong, 2020: (Liobikiene & Bernatoniene, 2017). Compiled by Ketelsen et al., 2020: (Jeżewska-Zychowicz and Jeznach, 2015).

[2] Compiled by Afonso et al. (2018): (Do Paço et al., 2009; D'Souza, Taghian, & Lamb, 2006; Memery et al., 2005; Ottman & Reilly, 1998).

[3] Compiled by Ketelsen et al., 2020: (Koutsimanis et al., 2012; Neill and Williams, 2016; Scott and Vigar-Ellis 2014). Compiled by Zhang and Dong, 2020: (Degirmenci, & Breitner, 2017; Habich-Sobiegalla, 2017; Shiel et al., 2020; Sreen et al., 2018).
[4] Compiled by Afonso et al. (2018): (Samdahl & Robertson, 1989; Memery, Megicks, & Williams, 2005). Compiled by Ketelsen et al., 2020: (Barber, 2010; Baruk and Iwanicka, 2016; Jeżewska-Zychowicz and Jeznach, 2015; Klaiman et al., 2016; Koutsimanis et al., 2012).
[5] Compiled by Afonso et al. (2018): (Do Paço, Raposo, & Filho, 2009; Kinnear et al., 1974; Straughan & Roberts, 1999).
[6] Compiled by Zhang and Dong, 2020: (Habich-Sobiegalla, 2017).
[7] Compiled by Afonso et al. (2018): (Awad, 2011; Ottman and Reilly, 1998).
[8] Compiled by Afonso et al. (2018): (Anderson & Cunningham, 1972; Kassarjian, 1971; Kinnear et al., 1974; Roberts, 1996; Roberts & Bacon, 1997; Samdahl & Robertson, 1989). Compiled by Zhang and Dong, 2020: (Sergio et al., 2020).
[9] Compiled by Afonso et al. (2018): (Aaker & Bagozzi, 1982; Do Paço et al., 2009; Memery et al., 2005; Ottman & Reilly, 1998; Roberts, 1996; Schwartz & Miller, 1991). Compiled by Zhang and Dong, 2020: (Cai, 2017; Chekima et al., 2016). Compiled by Ketelsen et al., 2020: Koutsimanis et al., 2012).
[10] Compiled by Afonso et al. (2018): (Samdahl and Robertson, 1989; Straughan and Roberts, 1999). Compiled by Zhang and Dong, 2020: (Fleith et al., 2016).
[11] Compiled by Afonso et al. (2018): (Bang et al., 2000; Chan & Lau, 2000; Dunlap & Jones, 2002; Kim and Choi, 2005; Kinnear et al., 1974; Maloney et al., 1975; Roberts & Bacon, 1997; Straughan & Roberts, 1999). Compiled by Narula and Desore, 2016: (Koenig-Lewis et al., 2014; Magnier and Schoormans, 2015). In Dangelico et al. (2021).
[12] Compiled by Afonso et al. (2018): (Kinnear et al., 1974; Balderjahn, 1988; Ellen et al., 1991; Berger & Corbin, 1992; Roberts, 1996; Roberts & Bacon, 1997; Straughan & Roberts, 1999; Joonas, 2008; Gupta & Ogden, 2009; Young, Hwang, McDonald, & Oates, 2010; Kim, 2011; Tan, 2011; Albayrak, Caber, & Moutinho, 2011; Akehurst et al., 2012). Compiled by Zhang and Dong, 2020: (Carfora et al., 2019). Compiled by Narula and Desore, 2016: (Hirschman, 1980; Laroche et al., 2001; Michaud and Llerena, 2011).
[13] Compiled by Afonso et al. (2018): (Straughan & Roberts, 1999).
[14] Compiled by Afonso et al. (2018): (Chan, 2001; Gupta & Ogden, 2009; Kim, 2011; Kim & Choi, 2005; McCarty & Shrum, 2001).
[15] Compiled by Zhang and Dong, 2020: (Jaiswal & Kant, 2018; Trivedi, 2018).
[16] Compiled by Zhang and Dong, 2020: (Cheung & To, 2019).
[17] Compiled by Zhang and Dong, 2020: (Wei et al., 2018).
[18] Compiled by Zhang and Dong, 2020: (Cerri et al., 2017; Hao, 2019).
[19] Compiled by Zhang and Dong, 2020: (Jäger & Anja, 2020).
[20] Zhang and Dong (2020) did not mention the degree of significance of the bond with green behaviour. They just compiled a series of recommended authors for these factors, including attitude, awareness of green products, Environmental concern/consciousness/ethics/responsibility, and ecological literacy: (Arminda et al., 2019; Carfora et al., 2019; Chekima et al., 2016; Cheung & To, 2019; Ciasullo et al., 2017; Hojjat & Behnaz, 2016; Khare & Sadachar, 2017; Lai & Cheng, 2016; Laureti & Benedetti, 2018; Mecikalski & Carey, 2018; Megavannan et al., 2019; Osburg et al., 2020; Patel et al., 2020; Sangroya & Navak, 2017; Shao & Unal, 2019; Shiel et al., 2020; Shin et al., 2017; Silvia & Maria, 2020; Silva et al., 2020; Tan et al., 2017; Tong et al., 2020; Yatish & Zillur, 2019; Wei et al., 2018; Wei & Jung, 2017; Confente et al., 2020).
[21] Compiled by Zhang and Dong, 2020: (Koklic et al., 2019).
[22] Zhang and Dong (2020) did not mention the degree of significance of the bond with green behaviour. They just compiled a series of recommended authors for these factors: Jung et al., 2020; Khare, 2015; Khare and Sadachar, 2017; Koklic et al., 2019; Laureti and Benedetti, 2018; Osburg et al., 2020; Park and Lin, 2020; Qi and Ploeger, 2019; Silva et al., 2020; Wang et al., 2017; Wei and Jung, 2017). Health also in Padel and Foster (2005).
[23] Zhang and Dong (2020) did not mention the degree of significance of the bond with green behaviour. They just compiled a series of recommended authors for these factors and packaging: (Silvia and Maria, 2020; Carfora et al., 2019; Kathleen et al., 2018; Hsu et al., 2017; Hojjat and Behnaz, 2016; Sultan et al., 2020; Megavannan et al., 2019; Shao and Unal, 2019; Chekima et al., 2017; Matsumoto et al., 2018; Lee et al., 2019; See and Balaji, 2016; Hao et al., 2019; William et al., 2019). Availability and Accesibility (Braimah, 2015; Liobikiene et al., 2017) also in Sharma (2021). Product attributes also (Muratore, 2016) in Sharma (2021). Availability in Dangelico et al. (2021).
[24] Compiled by Zhang and Dong, 2020: (Wang et al., 2017; Zhang et al., 2018; Lai and Cheng, 2016; Yatish and Zillur, 2019; Cai et al., 2017; Zhou et al., 2019; Xu et al., 2020; Yang et al. 2015; Jäger and Anja, 2020; Yatish and Zillur, 2017). Also in Padel & Foster (2005).
[25] Compiled by Zhang and Dong, 2020: (Chekima et al., 2016).
[26] Compiled by Zhang and Dong, 2020: (Zhang et al., 2018).
[27] Zhang and Dong (2020) did not mention the degree of significance of the bond with green behaviour. They just compiled a series of recommended authors for these factors, including peer influence/opinion: (Wang et al., 2017;

Afzaal et al., 2019; Sreen et al., 2018; Qi and Ploeger, 2019; Khare, 2015; Halder et al., 2020; Yatish and Zillur, 2017; Liobikiene et al., 2017; Lu et al., 2015).
[28] Compiled by Zhang and Dong, 2020: (Halder, 2020; Fleith & Duarte, 2017; Jung et al., 2020). Compiled by Narula and Desore, 2016: (Triandis, 1993; McCarty and Shrum, 1994).
[29] Zhang and Dong (2020) did not mention the degree of significance of the bond with green behaviour. They just compiled a series of recommended authors for these factors, including social media: (Sidharth et al., 2016; Zhao et al., 2018; Lee et al., 2015; Sergio et al., 2020; Zhang et al., 2016; Kim and Kang, 2020; Yang and Zhang, 2020.
[30] Compiled by Narula and Desore, 2016: (Jeżewska-Zychowicz and Jeznach, 2015; Koenig-Lewis et al., 2014; Magnier and Schoormans, 2015; Prakash and Pathak, 2017; Trivedi et al., 2018).
[31] Compiled by Narula and Desore, 2016: (Sheth et al., 1991; Bei and Simpson, 1995; Essoussi and Linton, 2010).
[32] Compiled by Zhang and Dong, 2020: (Mecikalski & Carey, 2018; Sergio et al., 2020).
[33] Compiled by Narula and Desore, 2016: (Roberts, 1995, 1996; Straughan and Roberts, 1999).
[34] Compiled by White et al., 2019. Compiled by Zhang and Dong, 2020: (Ebru et al., 2015). (Rejeb et al., 2022).
[35] Compiled by Ketelsen et al., 2020: (Neill and Williams, 2016; Scott and Vigar-Ellis, 2014).
[36] Compiled by Ketelsen et al., 2020: (Barber, 2010; Muratore and Zarba, 2011).
[37] Compiled by Ketelsen et al., 2020: (Barber, 2010; Neill and Williams, 2016).
[38] Compiled by Sharma (2021): (Biswas & Roy, 2015; Borin et al., 2011; Brochado et al., 2017; Chan, 1999; Dunlap & Jones, 2002; Finisterra do Paço & Raposo, 2010; Fryxell & Lo, 2003; Goh & Balaji, 2016; Haws et al., 2014; Hu et al., 2010; Jang et al., 2015; Kumar & Ghodeswar, 2015; Lim et al., 2013; Lin and Niu, 2018; Liu et al., 2012; Maruyama et al., 2019; Michaud & Llerena, 2011; Paul and Rana, 2012; Paul et al., 2016; Perera & Hewege, 2018; Romani et al., 2016; Schahn and Holzer, 1990; Sharma & Kushwaha, 2019; Stolz et al., 2013; Suki, 2016a, 2016b).
[39] Sales channels and Promotions in Narula and Desore (2016). Sharma (2021) compiled Store environment (Amos et al., 2014), Friendly employee behaviour
[40] Compiled by Sharma (2021): (Cheah & Phau, 2011; Wang, 2014).
[41] Compiled by Sharma (2021). Green purchase intention in (Chowdhury and Samuel, 2014; Hassan, 2014; Kautish & Sharma, 2018; Kirmani & Khan, 2018; Mainardes, Yeh, et al., 2017b; Trivedi et al., 2015; Yadav & Pathak, 2016; Wang, 2014). Green purchase trust in (Bailey et al., 2016; Chen, 2010, 2013; Chen & Chang, 2013; Chen & Chen, 2019; Davari & Strutton, 2012; Haruna & Kamariah, 2015; Kang & Hur, 2012; Punyatoya, 2015).
[42] Compiled by Sharma (2021): (Albayrak et al., 2013; Kordshouli et al., 2015; Raska & Shaw, 2012).
[43] Dangelico et al. (2021), stated innovativeness is not significant but they also recognize it is significant and negative in F. Testa et al. (2020) and significant and positive in Alzubaidi et al. (2020). Mentioned as 'Product innovation and segmentation' in Luzio and Lemke (2013) in Sharma (2021).
[44] Compiled by Sharma (2021): (Akturan, 2018; Huang and Wang, 2018; Punyatoya, 2015; Suki, 2016a, 2016b).
[45] Compiled by Sharma (2021): (Ahi & Searcy, 2013; Chan et al., 2012; Çankaya & Sezen, 2019; Lin & Sheu, 2012; Liu et al., 2012; Sarkis et al., 2011; Wu et al., 2012; Zhu et al., 2011)
[46] Compiled by Sharma (2021): (Delai & Takahashi, 2013; Liu, Kasturiratne, et al., 2012; Liu, Wang, et al., 2012; Moser, 2015; Muller & Ruffieux, 2011; Newton and Meyer, 2013; Sarkis et al., 2011; Steg et al., 2014; Tripathi and Pandey, 2018; Zhao & Zhong, 2015).
[47] In Dangelico et al. (2021).

Source: own elaboration from Afonso et al. (2018), Ketelsen et al. (2020), Narula and Desore (2016), White et al. (2019), and Zhang and Dong (2020).

Individual factor group

Within the individual factors, psychological factors are the factors that most affect Green Behaviour (Zhang and Dong, 2020). Afonso et al. (2018) stated that psychographic factors are the ones with most weight on defining Green Behaviour. As can be seen, they are similar so they could even form a sub-group. Psychographic/psychological factors are very present in the latest segmentation of the Green Consumer. Narula and Desore (2016) called them 'consumer's psychology'; Dangelico and Vocalelli (2017) called them 'personality drivers'; finally, White et al. (2019) called them 'the individual self'. These factors of values, interests, attitudes, and other characteristics related to personality are the most relevant and used today. This is because these factors have a deep and long-term effect on Green Behaviour, which makes the consumer make stable green choices (Zhang and Dong, 2020), because it is in this stage that the purpose or consumption is first formed. It is interesting to note that there is a full consensus that environmental concern and perceived consumer effectiveness correlate positively with

with greener behaviour (Afonso et al., 2018)[3]. It is interesting to pouint out for future research the introduction of new factors such as individual creativity, materialism (Dangelico et al., 2021), and the role of feelings and emotions (Rejeb et al., 2022).

Sociodemographic factors include gender, age, income, and education level factors (Afonso et al., 2018). They are the most objective factors. They were popular from the 70s to the beginning of the 90s with the reduction of their popularity in favour of psychographic/psychological factors (Zhang and Dong, 2020). However, their role should be complementary to psychographic/psychological factors on green consumer segmentation (Afonso et al., 2018; Zhang and Dong, 2020) because consumers will always prefer personal convenience (Narula and Desore, 2016; White et al., 2019). However, green literature commonly adopts both approaches (Ketelsen et al., 2020; Narula and Desore, 2016).

Finally, consumers cannot behave as rational subjects in cases of repetitive activities such as purchasing food. That is why habits, experiences and lifestyle factors are so important in guiding them (White et al., 2019; Zhang and Dong, 2020), even more than others such as peer influence, product knowledge and brand attachment (Sharma, 2021). Especially in the case of food, consumers look to safety and health as drivers of Green Consumer Behaviour (Dangelico et al., 2021).

Product Attributes and Marketing group

Consumers cannot buy products based on their own preference alone, since Green Marketing also plays a role in consumer decision making (Zhang and Dong, 2020). Here, two positive factors related to Green Consumer Behaviour with respect to food are highlighted: packaging and eco-labels.

Packaging is a key component in Green Products (do Paço et al., 2014). No consumer product has a zero impact on the environment (Ottman et al., 2006), therefore, the key is to reduce this impact in its packaging (Magnier et al., 2016; Scott and Vigar-Ellis, 2014). That's why the most common product strategies are to make products more durable, repairable, healthier, safer, and following the Three Rs of environmentalism (Mishra and Sharma, 2014). It has been studied that reducing packagingis the best option for consumers to pay an extra price (Han et al., 2018; Ketelsen et al., 2020). Ketelsen et al. (2020) have identified that there is a lack of knowledge on the part of consumers to recognize green packaging.

On the other hand, eco-labelling has been highlighted in different reviews of the literature (e.g., Dangelico and Vocalelli, 2017; Ketelsen et al., 2020; White et al., 2019) as an important promotional tool to convey sustainable attributes and relevant product environmental information (Taufique et al., 2017). It also plays a role in reducing ignorance barrier and the attitude-behaviour gap, enabling consumers to make green decisions (Borin et al., 2011; Taufique et al., 2017). However, consumers have limited awareness of eco-labels (Grunert et al., 2014), which means an eco-labelling gap in educating consumers for future research (Taufique et al., 2017).

Finally, it is interesting to remark some limitations of this group. Product Attributes and Marketing group factors treat products as independent from marketing. This group do not consider other more general drivers such as company drivers (in Dangelico and Vocalelli, 2017). Finally, the attributes of service and value as such have not been contemplated, which could lead to future research.

[3] Perceived consumer effectiveness is defined as "the extent to which consumers believe that they, as individuals (…) can make a difference in contributing to environment protection" (Afonso et al., 2018).

Social Influence group

Humans are social beings by nature. Consumers are predictively influenced by their environment. They will always follow social norms built by the structure of their society and culture and will be influenced by those media and powers (public, private and others) present in any place (White et al., 2019; Zhang and Dong, 2020). Dangelico and Vocalelli (2017) created a group of similar factors called 'situational drivers', which includes factors mentioned such as the cultural and environmental situation, but also others very related to subject's context such as the financial status and the time available for the decision. It could be summarized that exposure to others and context are so influencial that it even explains why peer opinion, media and even collectivism have a significant positive effect on Green Behaviour; while, in Dangelico et al. (2021) empirical study, 'social value' is not significant.

5.4. Conclusions

The conclusions in this second section have been summarized to respond to the Green Consumer Behaviour objective, where it is neccessary to resolve why consumers buy green products (Narula and Desore, 2016), and their boundary conditions and influences (Bian, 2020), theories and models of interest (Groening et al., 2018; Zhang and Dong, 2020).

- We have been focused on green consumers, which are those characterised for consuming products with the maximum respect to environment (Afonso et al., 2018). Here, green purchaser differentiation could be subject to future research to contribute the attitude-behaviour gap.
- There are different degrees of green consumer, from those self-considered non-green to those with the greenest behaviour (Afonso et al., 2018). In general, consumers are in a medium level and require help to understand sustainability (Narula and Desore, 2016; White et al., 2019). However, they showed their willingness to improve their performance (Afonso et al., 2018; Narula and Desore, 2016; Sharma, 2021). There is a field to better inform consumers subject to future research. Also, there could be concluded that the attitude-behaviour gap still needs future research (Sharma, 2021).
- The most used theories in Green Consumer Behaviour are TPB (Ketelsen et al., 2020; Taufique and Vaithianathan, 2018; Zhang and Dong, 2020), VAB (Zhang and Dong, 2020), ABC, and VBN (Zhang and Dong, 2020). The variable most used as dependent is Green Purchase Behaviour (Zhang and Dong, 2020). Other theories and models compiled by Groening et al. (2018) and other authors are subject to test in future research such as "More Comprehensive Research Model" by Zhang and Dong (2020). It is interesting that, in most of the cases, dependent variable is Green Product, and 4 ps logic is very present.
- A list of Consumer Behaviour Factors has been described. Not conclusive, contradictory or not described factors conclusions are subject to future research. Two limitations have been found: studies cited are not always specifically focused on food; and factors could be repeated with different names; factors names should be unified in future research.
- There has been classified 3 influencing factors groups: Individual factor, Product Attributes and Marketing, and Social Influence:
    - Individual factors Psychographic/psychological factors have the biggest weight compared to all factors (Zhang and Dong, 2020), but others are complementary, such as sociodemographic factors (Afonso et al., 2018). Among Psychographic/psychological factors, Environmental concern and Perceived consumer effectiveness are the key drivers (Afonso et al., 2018). Specially in food categories,

consumers look for safety and health as Green Consumer Behaviour drivers (Dangelico et al., 2021). It is interesting to note for future research new factors such as individual creativity, materialism (Dangelico et al., 2021), and feelings and emotions (Rejeb et al., 2022).

- Product attributes and marketing are related to the supply value proposition. Packaging and eco-labels have been highlighted in terms of food category. Consumers do not have enough knowledge on these factors, which could lead to educating consumers future research (Taufique et al., 2017). Furthermore, the service (Rust and Huang, 2014) and the value creation process (Kotler, 2020) attributes are subject to future research.
- Finally, social influence still needs conclusive statements in future research on green consumption.

In the next section, a review of the WTP for organic food will carried out to close the present study. Therefore, it will allow describing the WTP objective of this research.

6. WILLINGNESS TO PAY MORE FOR ORGANIC FOOD

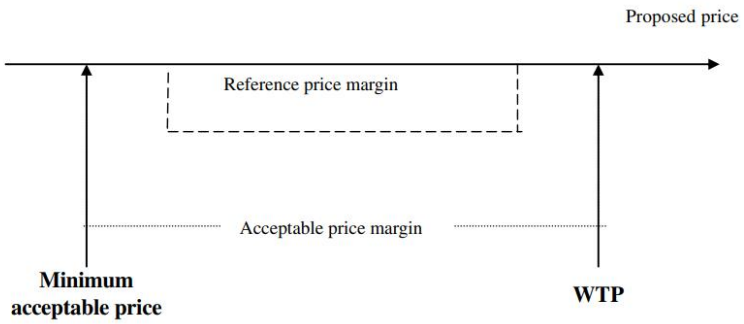
6.1. Definitions

WTP is defined as "*the maximum monetary sacrifice the consumer accepts to make in return for all the benefits received or that he will receive in the future*" (le Gall-Ely, 2009, p. 94). His judgment is based on acquisition utility explained in assimilation-contrast theory (Sherif and Hovland, 1961; Sherif, 1963, in le Gall-Ely, 2009), which measures the expected pleasure when consumers purchase. Other pricing concepts are needed to better understand WTP: reference price, acceptable price, and value.

- Reference price: "*price or set of prices the consumer uses to compare and evaluate the price of a proposed good or service"* (Monroe, 1979, in le Gall-Ely, 2009, p. 93). Its judgement is based on transaction utility theory (Thaler, 1983, 1985, in le Gall-Ely, 2009), which measures the perception of price as a good or bad deal.
- Acceptable price: price margin which encompasses all the prices consumers are willing to pay for a product or service (le Gall-Ely, 2009). His judgment is based on acquisition utility, decided after the reference price judgment (le Gall-Ely, 2009).
- Value: Also known as "global value" or "exchange value" (last name by Monroe and Krishnan, 1985, and Zeithaml, 1988, in le Gall-Ely, 2009), is "*the evaluation of experiences with an object or class of objects (usage value), based on all the sacrifices and benefits associated with it*" (Aurier, Evrard and N'Goala, 2004, in le Gall-Ely, 2009). His judgment is also based on the utility of acquisition after consumption.

Figure 4 visually clarifies the differences among WTP, reference price and acceptable price. The reference price is represented by a narrower price margin than the acceptable price because the judgement of acceptability is different and posterior to the reference price (le Gall-Ely, 2009).

Figure 4. WTP, reference price and acceptable price



Source: le Gall-Ely (2009).

WTP is intrinsically related to the price marketers must set when value creation. In the following part Green Price, or price in green context, will be described.

6.1.1. Green Price

In the green context, the premium price that green products or services cost is what is called the Green Price in this study. Green Price encompasses WTP (Dangelico and Vocalelli, 2017). It is defined as the additional cost consumer will pay for green products in comparison to conventional ones, expecting greener firm performance. This is organic food tend to be more expensive than non-organic (Peattie and Crane, 2005). The greener firm performance, whether reflected in products or in other media, is "the added value" described by Esmaili and Fazeli (2015) that will make consumers pay more. The green

Price could be due, for example, to more expensive materials, restrictive constraints, increased taxation, or niche nature of the products (Peattie and Crane, 2005).

Green Price is the biggest barrier in green purchasing (Narula and Desore, 2016; Padel and Foster, 2005). The green price is also related to product quality (Dangelico and Vocalelli, 2017). Thus, a common barrier is poor consumer perception of an under-performing, over-priced green product that cannot compete with non-green equivalents (Peattie and Crane, 2005). Other barriers related to Green Price are the confusion, lack of trust and loyalty, and apprehensions about perceived usefulness, which make consumers unwilling to pay an extra price for food (Sharma, 2021).

Regarding the 4 ps in Green Marketing, some authors stated that Green Price, together with Green Product, are the upmost important pillars (Esmaili and Fazeli, 2015; Ketelsen et al., 2020). On the other hand, Lampe and Gazda (1995) placed Price and Place in second place in the Green Marketing Mix. As it was said, 4 ps model is outdated, but it could bring information about the importance of Green Price. However, Green Price is subject to future research in the value creation process.

Once the Green Price and WTP have been described, organic food WTP factors are listed for insightful information on the drivers and the barriers in the WTP process.

6.2. WTP influencing factors for organic food

This section describes WTP for organic food. In general, consumers are increasingly adopting environmentally-friendly lifestyles and buying patterns. However, green consumers or not, they are not WTP higher prices for greener products (Phillips, 1999).

There is still no consensus on obtaining concrete WTP values (Ketelsen et al., 2020). Therefore, we can find a great heterogeneity among consumers in terms of WTP (Dangelico and Vocalelli, 2017). The factors of WTP need to be applied in specific green contexts, as conditions vary not just from industry to industry, but also from product to product (Ketelsen et al., 2020; Narula and Desore, 2016).

Different authors have tried to simplify the list of WTP factors to obtain manageable models. Narula and Desore (2016) chose price as the definite WTP factor, followed by convenience and availability. Meanwhile, Papaoikonomou (2011) pointed out that traditional purchase criteria come first (price, quality, and availability) in organic food WTP. Price and availability are common in both studies.

A compilation of WTP factors can be seen in Table 8 and Table 9. They are separated because Table 8, from systematic review by Katt and Meixner (2020), shows how much WTP factors have been studied and the empirical results, while Table 9 shows other WTP factors that are not in Table 8.

Table 8. Organic food WTP influencing factors

Consumer-related factors			
Environmental concern [1]	**Product-related factors**	**Purchasing venue factors**	**Degree of significance**
Health attitude [2]			Examined in <30 studies with >75% with a significant effect on WTP
Frequency of purchase/ consumption [3]			
Recycling behaviour [6]	Locality [4]	Type of store [5]	Examined in 5-29 studies with >75% with a significant effect on WTP
	(Perceived) Quality [7]		
	Organic label /eco-label [8]		
	Certification [9]		
	Familiarity [10]		
Cultural values [12]	(Perceived) Availability [11]		
	Promotion [13]	Store design/ visual stimulus [14]	Examined in <5 studies with >75% with a significant effect on WTP
	Traceability [15]		
Age	Involvement [16]		
Gender	Price [17]		Examined in >30 studies with conflicting empirical evidence
Income [18]			
Education [19]			
Children/ household size [20]			
Employment status [21]			
Marital status [24]	Food safety [22]	Convenience/ proximity to consumer [23]	Examined in 5-29 studies with conflicting empirical evidence
Ethical concern [25]			
Attitude towards CSR [26]			
Place of living (urban/rural) [28]		Retailer brand perception [27]	Examined in <5 studies with conflicting empirical evidence
Home ownership [29]			Examined in 5-29 studies with <25% with a significant effect on WTP
[1] Environmental concern. Katt and Meixner (2020) compilation: Cicia, Del Giudice, and Ramunno (2009), Gifford and Bernard (2011), Krystallis, Fotopoulos, and Zotos (2006), Sriwaranun, Gan, Lee, and Cohen (2015). Barber (2010) and Orset et al. (2017), both in Ketelsen et al. (2020).	Energy and material use [30]		Examined in <5 with <25% with a significant effect on WTP

[2] Health attitude. Katt and Meixner (2020) compilation: with empirical evidence in Wier, Jensen, Andersen, and Millock (2008); and with no conclusive evidence in Popa, Mitelut, Popa, Stan, and Popa (2019), Xie, Wang, Yang, Wang, and Zhang (2015). Padel and Foster (2005), Zhang et al. (2018).

[3] Frequency of purchase/ consumption. Katt and Meixner (2020) compilation: Hamzaoui-Essoussi and Zahaf (2012), Mohamed, Kit Teng, Rezai, and Sharifuddin (2014), Gottschalk and Leistner (2013).

[4] Locality. Hasselbach and Roosen (2015) and Hempel and Hamm (2016) in Katt and Meixner (2020).

[5] Type of store. Katt and Meixner (2020) compilation: Gottschalk and Leistner (2013), Berlin, Lockeretz, and Bell (2009) and Connolly and Klaiber (2014).
[6] Recycling behaviour. Gracia and De Magistris (2008) and Ureña, Bernabéu, and Olmeda (2008), both in Katt and Meixner (2020). Klaiman et al. (2016) in Ketelsen et al. (2020).
[7] (Perceived) Quality. Bruschi, Shershneva, Dolgopolova, Canavari, and Teuber (2015) and Hasselbach and Roosen, (2015) in Katt and Meixner (2020). Papaoikonomou et al. (2011) in Ketelsen et al. (2020). Narula and Desore (2016) compilation: Berger and Corbin (1992), Peattie (2001), Ginsberg and Bloom (2004), Jain and Kaur (2004), Luo and Bhattacharya (2006), Gupta and Ogden (2009), Lin et al. (2013), Lu et al. (2013).
[8] Organic label /eco-label. Katt and Meixner (2020) compilation: effect on WTP in Janssen and Hamm (2012), Mohamed et al. (2014), Olesen, Alfnes, Røra, and Kolstad (2010); no effect in Tebbe and von Blanckenburg (2018) Narula and Desore (2016) compilation: Hartmann et al. (2005), Rex and Baumann (2007), Rahbar and Wahid (2011), Hartmann and Apaolaza-Ibáñez (2012), Testa et al. (2013).
[9] Certification. Katt and Meixner (2020) compilation: effect on WTP in Rozan et al. (2004), Wang and Huo (2016); and with country-of-origin effect for such certifications in Yin, Han, Wang, Hu, and Lv (2019).
[10] Familiarity. Katt and Meixner (2020) compilation: Arvola et al. (2008), Gaspar García, Mesías Díaz, Martínez-Carrasco Pleite, and Miguel Martínez Paz (2012), Kalogeras et al. (2009) and Vecchio, Van Loo, and Annunziata (2016).
[11] (Perceived) availability. Katt and Meixner (2020) compilation: Amfo, Donkoh, and Ansah, 2019; Nandi et al. (2017), Meixner, Haas, Perevoshchikova, and Canavari (2014), Nandi et al. (2017). Papaoikonomou et al. 2011) in Ketelsen et al. (2020). Narula and Desore (2016). Narula and Desore (2016) compilation: Van liere and Dunlap (1981), Samdhal and Robertson (1980), Berger and Corbin (1992).
[12] Cultural values. Zander and Hamm (2010) in Katt and Meixner (2020).
[13] Promotion. Negative effect on WTP in Ngobo (2011) and Van Doorn and Verhoef (2015), both in Katt and Meixner (2020), especially if consumers are uncertain about product quality.
[14] Store design/ visual stimulus. Guyader, Ottosson, and Witell (2017) in Katt and Meixner (2020).
[15] Traceability. Bradu, Orquin, and Thøgersen, 2014 in Katt and Meixner (2020).
[16] Involvement. Involvement in Barber, Taylor, and Strick (2009) in Katt and Meixner (2020).
[17] Price. Katt and Meixner (2020) compilation: effect on WTP in Hasselbach and Roosen (2015), Probst, Houedjofonon, Ayerakwa, and Haas (2012), Zielke (2010); and no effect in e.g., Sriwaranun et al. (2015). Papaoikonomou et al. 2011) in Ketelsen et al. (2020); Narula and Desore (2016). Price as barrier by Narula and Desore (2016) compilation: Weiner and Sukhdial (1990), Prakash (2000), Chen (2001), Peattie (2001), Ginsberg and Bloom (2004), Leiondou et al. (2010), Essoussi and Linton (2010), Doorn and Verhoef (2011), Lin et al. (2013) and Lu et al. (2013).
[18] Income. Narula and Desore (2016) compilation: Roberts (1995), Roberts (1996), Straughan and Roberts (1999), Laroche et al. (2001), Rowlands et al. (2003), do Paco and Raposo (2010) and Akehurst (2012).
[19] Education. Narula and Desore (2016) compilation: Henion (1972), Murphy et al. (1978), Hirschman (1980), Roberts (1995), Roberts (1996), Straughan and Roberts (1999), Laroche et al. (2001), Rowlands et al. (2003), do Paco and Raposo (2010) and Akehurst (2012).
[20] Katt and Meixner (2020) compilation: effect on WTP in McFadden and Huffman (2017), Nandi, Bokelmann, Gowdru, and Dias (2017) Van Loo, Caputo, Nayga, Meullenet, and Ricke (2011); and no effect in Kalogeras, Valchovska, Baourakis, and Kalaitzis (2009) and Zhang et al. (2018).
[21] Employment status. Katt and Meixner (2020) compilation: Akgüngör, Miran, and Abay (2010) and Krystallis and Chryssohoidis (2005).
[22] Food safety: Katt and Meixner (2020) compilation: with an effect on WTP in Rozan, Stenger, and Willinger (2004), Zhang et al. (2018); and no effect in WTP in e.g., Ellison, Bernard, Paukett, and Toensmeyer (2016).
[23] Convenience/ proximity to consumer: Katt and Meixner (2020) compilation: with effect on WTP in Wang and Huo (2016) and Wu, Swait, and Chen (2019); and no effect in Vecchio et al. (2016) and Yin, Wu, Du, and Chen (2010). Narula and Desore (2016).
[24] Marital status. Katt and Meixner (2020) compilation: Govindasamy, DeCongelio, and Bhuyan (2006) Owusu and Owusu Anifori (2013).
[25] Ethical concern. Katt and Meixner (2020) compilation: effect on WTP in Bartels and Onwezen (2014), Carlsson, Frykblom, and Lagerkvist (2007); and no effect in Zander and Hamm in (2010); significance varies if origin is animal or vegetal in Sriwaranun et al. (2015). Grimmer and Bingham (2013) and Papaoikonomou et al. 2011), both in Ketelsen et al. (2020).
[26] Attitude towards CSR. Katt and Meixner (2020) compilation: effect on WTP in Barbaro-Forleo et al. (2001); no effect in Tsen, Phang, Hasan, and Buncha (2006).
[27] Retailer brand perception Hwang and Chung (2019) and Jekanowski et al. (2000) in Katt and Meixner (2020).
[28] Place of living (urban/rural). Jekanowski, Williams, and Schiek (2000), Solgaard and Yang (2011), both in Katt and Meixner (2020).
[29] Home ownership. Barbaro-Forleo, Laroche, and Bergeron (2001) in Katt and Meixner (2020).
[30] In Shao and Ünal (2019).

Source: own elaboration from Katt and Meixner (2020).

Although Katt and Meixner (2020) explained the strength of the significance between factors and WTP, a "traffic light" has been simulated in this study. Green colours signify the most significant effects with a positive impact on WTP; yellow and orange colours mean conflicting empirical evidence, where studies show different valence of the significance for the same factors; and red colours mean the least significant effects with a positive impact on WTP. Color ranges from yellow to red are subject for future research.

Katt and Meixner (2020) also divided the factors into three groups: consumer-related, product-related and purchasing venue-related factors.

- Consumer-related factors: This group, in turn, is composed by consumer behaviour, demographics, and values and attitudes. Environmental concern and health attitude, belonging to values and attitudes, are the most significant factors (Rana and Paul, 2017). In organic food, health is an important motivator because consumers would pay for the absence of residues and toxins (Padel and Foster, 2005; Zhang et al., 2018). Therefore, it is the most studied factor in the literature. They are followed by consumer behaviour factors such as frequency of purchase and consumption and recycling behaviour; this last factor is closely related to environmental concern. Third, there are cultural values. And finally, the least significant factors; these are demographics and values such as ethics and attitude towards Corporate Social Responsibility. An interesting conclusion is that demographics do not necessarily influence WTP, as was commonly thought. Consumers should be given attention in relation to consumer values and attitudes, in particular concern for the environment and their health attitude; socio-demographic factors should only play an auxiliary role (Rana and Paul, 2017). Understanding the indirect effects (e.g., moderation and mediation) of attitudes on organic food WTP could be useful for future research (Katt and Meixner, 2020).
- Product-related factors. in turn, this group is composed by product attributes, product signalling and product-consumer relationship. These factors are found to regularly result in an increased WTP. In first place there is a big group of factors with a significance on WTP <75% in 5-29 studies where it can be found locality, (perceived) quality, organic label, certification, familiarity and (perceived) availability. Locality and organic label are closely related to (perceived) quality (Katt and Meixner, 2020). So, the price is the bigger barrier in green purchasing (Narula and Desore, 2016; Padel and Foster, 2005), but it has contradictory empirical evidence in terms of significance on WTP (Katt and Meixner, 2020); it needs future research. Food safety, a factor little studied, has a bigger impact in developing countries because food safety standards are less robust (Katt and Meixner, 2020). Finally, the use of Energy and material has a positive impact in the empirical study of Shao and Ünal (2019)
- Purchasing venue-related factors. These factors were by far the least studied category, so they could be the subject of future research. The most studied factor is the type of store. WTP will change if purchases are made at different types of supermarkets, farmers' markets, discount grocery retailers. The least studied factors are the perception of the retailer's brand and the convenience/ proximity of stores. Finally, the least studied factor is visual stimuli, highly interesting to research with methods such as eye tracking experiments (Katt and Meixner, 2020).

Table 9. Other organic food WTP influencing factors not in Katt and Meixner (2020) classification

Consumer-related factors	Product-related factors	Authors
Awareness and recognition Liking	Packaging factors	Awareness and recognition; Liking; and Packaging factors such as perceived environmental impact of food packaging materials, attitudes and preferences of packaging and conviction. All factors in Ketelsen et al. (2020).
	Knowledge about green products, understanding and uses	Ketelsen et al. (2020). Narula and Desore (2016) compilation: Schlegelmilch et al. (1996), Bang et al. (2000), Peattie (2001), Diamontopoulos et al. (2003), Young et al. (2010), Lin et al. (2012).
	Product ethical critical point	Product ethical critical point means the point where sacrifice will be higher than benefits. In Freestone and McGoldrick (2008) in Ketelsen et al. (2020).
Company's perceived environmental performance		Company's perceived environmental performance, where ethical concern and price moderate in Grimmer and Bingham, 2013, by Ketelsen et al. (2020).
Government subsidies		Lin and Huang (2012) in Narula and Desore (2016).
Belief that the manufacturer cares about the environment		Orset et al. (2017) in Ketelsen et al. (2020).
	Product Cost	Narula and Desore (2016) compilation: Berger and Corbin (1992), Bei and Simpson (1995), Ginsberg and Bloom (2004).
Reference groups		Narula and Desore (2016) compilation: Roberts (1995), Roberts (1996b), Straughan and Roberts (1999), Lee (2008), Akehurst (2012)
Customer satisfaction		Narula and Desore (2016) compilation: Reichheld and Sasser (1990), Fornell (1992), Finkelman (1993), Bei and Simpson (1995), Anderson (1996), Homburg et al. (2005), Michaud and Llerena (2011)
	Marketers claims in terms of trust, loyalty	Narula and Desore (2016) compilation: King (1985), Kangun et al. (1991), Mendleson and Polonsky (1995), Mohr et al. (1998), Jain and Kaur (2004), Peattie and Crane (2005), Gupta and Ogden (2009), Grimmer and Bingham (2013)
	Innovativeness	Narula and Desore (2016)

Source: own elaboration.

Some conclusions can be drawn from Table 8 and Table 9. There are no Purchasing venue factors in Table 9, reinforcing Katt and Meixner conclusion that these factors are the least studied. They could be subject of to future research. Thus, the factors of familiarity and involvement in Table 8 could be highly related to the factors in with Table 9 such as awareness and recognition, knowledge about green products, understanding and uses. Different authors take different names for sometimes the same concept. The clarification of these concepts and their relationship could lend to future research.

Finally, it should be noticed that there is an overemphasis on profiling consumers who are WTP a premium price for food and in general. However, little is known about the supply part. Wei et al. (2018), in their empirical study, have found that if companies involve consumers by participating more in the purchase process, they will tend to pay an extra, even if they are ‘not green’. Therefore, supply role should be researched in future research (Shao and Ünal, 2019; Wei et al., 2018). Greater interaction and proper understanding of consumer needs could help in WTP (Sharma, 2021).

6.3. Methodologies in eliciting WTP

There are multiple ways to estimate WTP employed. This study has followed Katt and Meixner (2020) and le Gall-Ely (2009) classification, as can be seen in Table 10.

Table 10. Methodologies in eliciting WTP

Approach	Technique	More popular techniques	Details
Stated preference approach	Indirect surveys (more common; easy to implement)	Contingent valuations	(Carson and Louviere, 2011); (Ertz et al., 2017, Neill and Williams, 2016, in Ketelsen et al., 2020). Psychological prices. Most used technique in organic food (Gaspar García, Mesías Díaz, Martínez-Carrasco Pleite, and Miguel Martínez Paz, 2012; Khan, Khanal, Lim, Jan, and Shah, 2018; Mohamed et al., 2014; Owusu and Owusu Anifori, 2013) (-) Biases: strategic-overestimation, hypothetical, informational.
		Choice experiments	Simulated purchase tests. (Carson and Louviere, 2011); (Klaiman et al., 2016, Rokka and Uusitalo, 2008, in Ketelsen et al., 2020).
		Conjoint analysis	(-) hypothetical, informational biases, WTP measured indirectly. (Arboretti and Bordignon, 2016, Koutsimanis et al., 2012)
	Direct surveys (less common)		(-) Price overstatement or understatement (e.g., social desirability bias), the lack of conversion into real purchase behaviour for the WTP stated, and the instability in judging prices if the consumer is unfamiliar with the product in question (Breidert et al., 2006).
Revealed preference approach	Market data analysis	Chronological series of sales or panel data	(+) External validity. (-) Only existing products; price elasticity measure.
		Hedonic price methods	
	Purchase offers / experimental auctions	BDM auctions /lotteries	Bidders concurrently present an offer price for a product. (+) Potential use in field experiments as the participant bids against a price generator (Wertenbroch and Skiera, 2002). (-) Potential severity of biases (Noussair et al., 2004).
		Vickrey auctions	All participants place a sealed bid and the highest bidder receives the product at the price of the second highest bid (Vickrey, 1961). (+) Relatively quick in participants finding an optimal bidding strategy (Noussair, Robin, and Ruffieux, 2004);
			(-) Overbidding (Wertenbroch and Skiera, 2002)

Source: own elaboration from Katt and Meixner (2020) and le Gall-Ely (2009)[4].

Katt and Meixner (2020) have grouped the methodologies for eliciting WTP into two categories: stated preference and revealed preference approaches. Stated preference approaches are simple, directly measure WTP, are valid for all types of products and are applicable at the point of purchase. On the contrary, they are subject to non-response and representativeness bias (le Gall-Ely, 2009). In turn, there are indirect ones and surveys. Indirect surveys are more common because participants do not have to set a price (Brown, Champ, Bishop, and McCollum, 1996, in Katt and Meixner, 2020).

Second, revealed preference approaches are themselves composed of market data and experiments. Market data comes from actual consumer purchases in real-life. Its limitation arises when researchers cannot manipulate prices and test new products. Experimental auctions are common either as controlled or field experiment. The most relevant experiments are BDM and Vickrey auctions. They are incentive-compatible because they encourage participants to act on their real behaviour. They are relatively simple for consumers to understand (Katt and Meixner, 2020). To reduce its drawbacks, modifications has been

[4] All the references are cited by Katt and Meixner (2020) except those indicated from Ketelsen et al. (2020).

made (Vecchio et al., 2016, in Katt and Meixner, 2020) and nth-price random auctions (McFadden and Huffman, 2017, in Katt and Meixner, 2020).

In addition to methodologies described, new approaches are still needed to empirically test attitude-behavior gap (Bian, 2020). To advance in eliciting WTP, it would be interesting to apply a neuromarketing approach (Zhang and Dong, 2020). It will clarify how emotions and unconscious responses influence customer perceptions and decisions (Rejeb et al., 2022).

Lastly, theories such as utility maximisation and Random Utility Theory coming from the field of microeconomics have been used to estimate WTP (McFadden, 1974, in Ketelsen et al., 2020), as well as value-for-money estimation (Dangelico et al., 2021). Others, such as 'Hierarchy of Effects Theory', VBN and ABC have been applied to understand how the 'conviction' to pay more for a green product or service works, although they do not adequately reflect the familiarity with the stimulus in question (Ketelsen et al., 2020). Future research is needed to find a suitable theory or model to estimate and know the conviction for WTP.

6.4. Conclusions

In this third section the following points have been summarized to respond to WTP for organic food objective in search for influencing factors and psychological barriers need robustness (Katt and Meixner, 2020; Kumar and Ghodeswar, 2015; Narula and Desore, 2016), as well as methods to prove WTP (Bian, 2020).

- WTP and related concepts has been clarified: reference price, acceptable price, and value.
- Green Price encompasses WTP (Dangelico and Vocalelli, 2017). It is the biggest barrier in green purchasing (Narula and Desore, 2016; Padel and Foster, 2005) and is subject to future research on the value creation process. Even if it is the bigger barrier, it has conflicting empirical evidence in terms of significance on WTP (Katt and Meixner, 2020); therefore, it needs future research.
- In general, consumers are adopting more and more environmentally-friendly lifestyles and buying patterns. However, no consumer is not WTP higher prices for greener products (Phillips, 1999).
- To describe WTP behaviour it is necessary to obtain the most important factors that intervene in such behaviour. However, there is still no consensus on the eliciting of the most important WTP factors, so future research is needed here.
- Ranges from yellow to red colours factors in Table 8 by Katt and Meixner (2020) are subject to future research because they are little studied or contradictory. The factors in table 9 are also subject to future research for the same reasons. Factors related to the place of purchase do not even appear in Table 9.
- Environmental concern and health attitude, belonging to values and attitudes, are the most significant factors (Rana and Paul, 2017). Moreover, understanding the indirect effects (e.g., moderation and mediation) of attitudes on organic food WTP could be useful for future research (Katt and Meixner, 2020).
- The supply role in WTP is subject to future research (Shao and Ünal, 2019; Wei et al., 2018). Greater interaction and proper understanding of consumer needs could help in WTP (Sharma, 2021).
- New approaches are still needed to empirically test attitude-behavior gap (Bian, 2020). Innovative methods to estimate WTP such as eye tracking experiments are subject of future

research (Katt and Meixner, 2020), as well as neuromarketing to clarify how emotions and unconscious responses work (Rejeb et al., 2022).

- It is also necessary to find an adequate theory or model to estimate and know the conviction of the WTP.

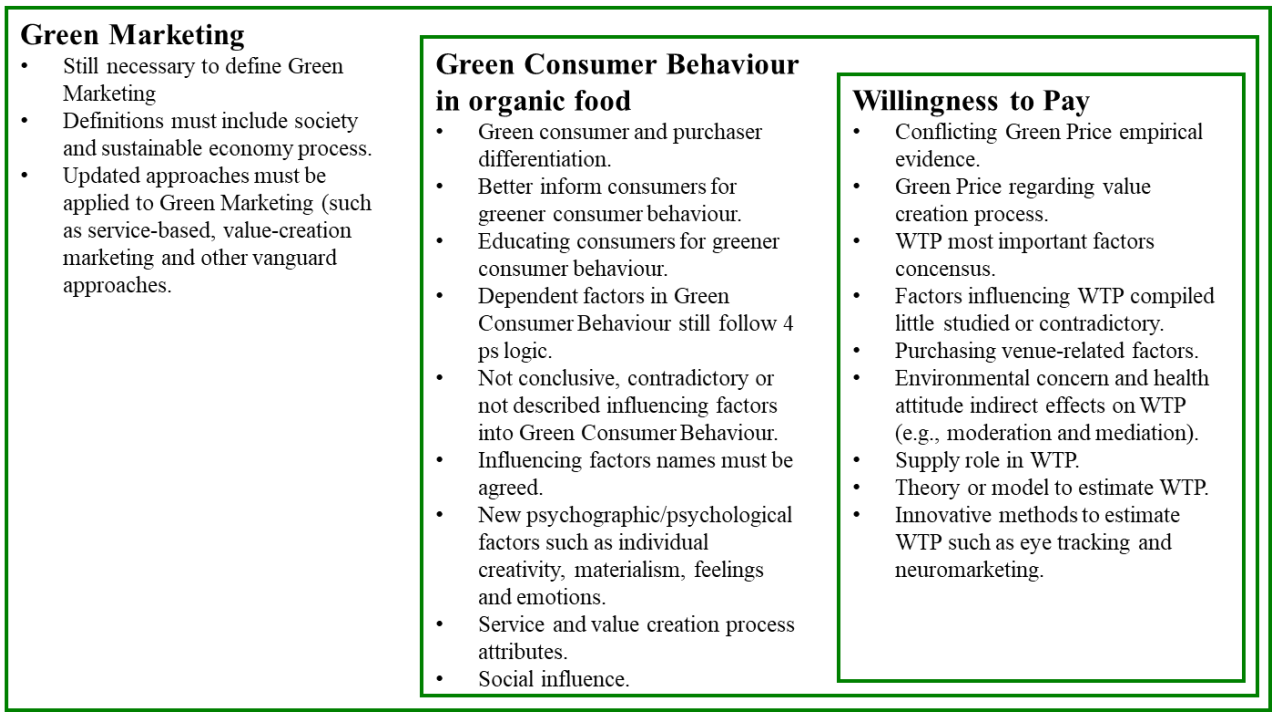
Having analysed Green Marketing, Green Consumer Behaviour and WTP in organic food, the following discussions and future research will be presented to describe attitude-behaviour gap corners and an integrated model.

7. FUTURE RESEARCH IN ATTITUDE-BEHAVIOUR GAP

7.1. Attitude-behaviour gaps

Figure 5 describes the attitude-behaviour gaps found in this study. Figure 5 is made up of three levels: Green Marketing; Green Consumer Behaviour in organic food, and WTP. Green Marketing level encompasses Green Consumer Behaviour and WTP, since Green Consumer Behaviour is a field inside Green Marketing literature. The organic food category has been highlighted as it is the relevant category this study aims to tackle inside Green Consumer Behaviour. Finally, within Green Consumer Behaviour in organic food, this study focuses on WTP as part of green purchase attitude (Sharma, 2021).

Figure 5. Attitude-behaviour gaps



Source: own elaboration.

To close the attitude-behaviour gap, in Green Marketing level it might be necessary to define Green Marketing according to updated approaches such as service-based (Rust and Huang, 2014) and value-creation marketing (Kotler, 2020), and others such as Service Dominant Logic co-creation process by Lusch and Vargo (2014). The new definitions should also include the impact on society and stakeholders considered in AMA's latest definitions (2017); and even new interactions among social actors such as service interactions (Lusch and Vargo, 2014).

TGreen Consumer Behaviour in organic food is also highlighted as still following the 4 ps model. An interesting gap found here is that consumers need to be educated (Taufique et al., 2017), and stakeholders should take a prior role in better informing them (Sharma, 2021).Finally, contradictory and not conclusive factors remain to be studied, as well as new ones, such as creativity, materialism (Dangelico et al., 2021), feelings and emotions (Rejeb et al., 2022).

Finally, the WTP is included in the Green Price (Dangelico and Vocalelli, 2017). Although it is the biggest barrier in green purchasing (Narula and Desore, 2016; Padel and Foster, 2005), it still has contradictory empirical evidence in terms of significance in WTP (Katt and Meixner, 2020), therefore, the approaches updated should also be taken here. Finally, there are still contradictory and not conclusive

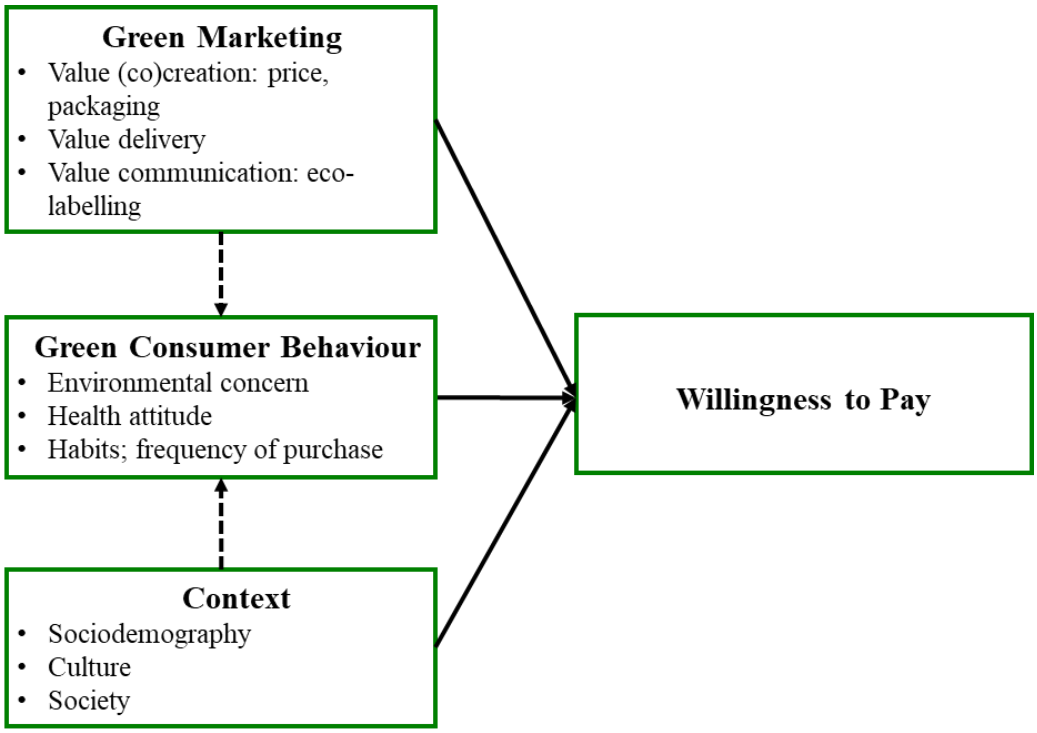
factors to study, as well as new ones, such as purchasing venue-related factors (Katt and Meixner, 2020) and supply role (Shao and Ünal, 2019; Wei et al., 2018); new models and indirect effects; and innovative methods to test empirically (Bian, 2020), such as eye-tracking (Katt and Meixner, 2020) and neuromarketing (Rejeb et al., 2022).

What it is common to all three levels is that they all need new approaches to their definition, new actors and their interactions, and more robust frameworks of influencing factors to close the existing attitude-behaviour gap.

7.2. New Integrated Model

The conclusions of this study and the identification of attitude-behaviour gaps have led to the creation of a new model to potentially apply in organic food category that can be seen in Figure 6. The dependent variable is WTP, which is the variable to estimate. Three groups of independent variables have been listed: Green Marketing, Green Consumer Behaviour and Context (last name taken from Sharma, 2021). Green Consumer Behaviour also plays a role as a moderator from which Green Marketing and Context could reach WTP, following Katt and Meiner (2020) indication of their indirect effects of attitudes on organic food WTP.

Figure 6. Model to estimate WTP for organic food



Source: own elaboration.

In the Green Marketing group, not only could a value-creation approach be seen (Kotler, 2020), but a step forward with value co-creation (Lusch and Vargo, 2014). In the (co)creation of value, price is highlighted as the biggest barrier (Narula and Desore, 2016; Padel and Foster, 2005), as well as the positive influence of packaging (Han et al., 2018; Ketelsen et al., 2020); and positive influence of eco-labelling as a communicator of value(Taufique et al., 2017).

In the Green Consumer Behaviour group, the factors that most influence the organic food category has been highlighted: Environmental concern (Afonso et al., 2018), health attitude (Rana and Paul, 2017), and habits by frequency of purchase (Katt and Meixner, 2020).

Finally, the name of the Context group comes from the study of Sharma (2021), although other authors called similar groups as Social Influence (Zhang and Dong, 2020) or situational drivers (Dangelico and Vocalelli, 2017). Sociodemographic factors have been included here following situational drivers' composition from Dangelico and Vocalelli, (2017), which includes subject's context factors such as financial status and available time for decision making. Culture is present in Zhang and Dong l (2020) model; and society tries to unify social influence and norms also in Zhang and Dong study (2020).

8. CONCLUSIONS

Human environmental impact has made Green Marketing grow significantly in recent times (Kumar and Ghodeswar, 2015; Rust, 2020). Consumers are aware of this issue (Sharma, 2021), and are even prepared to pay an extra price in categories such as organic food (Katt and Meixner, 2020). Since it is so present in our daily lives, food is the most studied category in the Green Marketing literature (Zhang and Dong, 2020).

However, the attitude of consumers towards environment is optimistic, but their behaviour does not match. This is what is called the attitude-behaviour gap which Green Marketing literature has identified (e.g., Ketelsen et al., 2020; Milovanov, 2015; White et al., 2019). This gap remains highly complex, and it has not yet been robustly resolved (Sharma, 2021). Hence, actions must be taken in this regard.

Therefore, this research has three complementary objectives not just to study and aggregate information to delimit attitude-behaviour gap, but to answer Rust´s (2020) question: "what are the unconscious responses influencing consumers' WTP more for eco food?". The objectives are: Green Marketing, Green Consumer Behaviour and WTP; the last two objectives are related to organic food.

Insightful conclusions have been drawn using a thematic approach and questions that Katt and Meixner (2020) stated to define gaps and future research. It is still necessary to define Green Marketing concept, and Green Consumer Behaviour in organic food and WTP models, always considering AMA's latest definitions (2017), with updated approaches such as service-based (Rust and Huang, 2014) and value-creation marketing (Kotler, 2020), and others such as Service Dominant Logic co-creation process by Lusch and Vargo (2014). Factors Influencing Green Consumer Behaviour (Dangelico and Vocalelli, 2017) and WTP need further research (e.g., Katt and Meixner, 2020). Innovative methods need to be tested empirically (Bian, 2020), such as eye-tracking (Katt and Meixner, 2020) and neuromarketing (Rejeb et al., 2022).

To sum up, there are two big challenges so far: consumers need to be educated to behave more environmentally friendly (Taufique et al., 2017); and they are not WTP more for green purchasing (Narula and Desore, 2016; Padel and Foster, 2005). These challenges have direct implications for marketers; hence, this study facilitates these tasks by mapping all corners of attitude-behaviour gap, as well as making a first approach to an integrated model to be tested in the future.

8.1. Managerial implications

This study has great managerial implications to retailers, as well as to organic food producers. In Green Marketing, it provides insight to designing, developing, and marketing green products and strategies for those companies that seek to integrate environmental sustainability (Dangelico and Vocalelli, 2017).

Lists of influencing factors are described. It allows to better understand the drivers and barriers of Green Consumers, better target organic food shoppers (Afonso et al., 2018; Katt and Meixner, 2020) and meet customer expectations (Peattie and Crane, 2005), helping to stimulate sustainable consumer behaviour change (Sharma, 2021), guiding consumers (Ketelsen et al., 2020).

Finally, packaging and eco-label need special attention (Katt and Meixner, 2020; Ketelsen et al., 2020), not only to obtain more sales, but to control high prices, one of the main barriers in green purchase (Ketelsen et al., 2020). It would be interesting for supermarkets to track organic food sales, for example,

by analyzing customer data through their loyalty programs (Katt and Meixner, 2020) using the integrated model of this study.

8.2. Limitations

Some important limitations have been found in this study. They need to be highlighted for future research. Based on this weakness of the study, its methodology is made of 16 systematic review studies from Scopus and Web of Science from 2017 to 2022. More studies are required to get more robust conclusions and model. A longer research time range should be considered, as well as other data bases need to be revised to cover all relevant literature. Keywords could also be expanded (Zhang and Dong, 2020).

In addition, limitations have been found in tables of influencing factors and theories. The studies cited may be generic and do not always focus specifically on food. Factors can be repeated with different names, just as different names can have the same meaning; should be unified in future research. Also, it is presumed that important influencing factors, theories, models, and methodologies could be overlooked.

This study might not bring the maximum exhaustiveness in some aspects. The aim of this study is to offer a roadmap for future research, but not prescriptive as such (Katt and Meixner, 2020). The contributions of this work by detecting corners of the attitude-behaviour gap and the proposal of an integrated model tend to be generic. Some factors depending on the green product category might be added to enrich the analysis (Afonso et al., 2018), since there could be significant variations among different product categories (Padel and Foster, 2005). Variations can also be found in different geographical areas; therefore, cross-country studies are recommended (Dangelico et al., 2021)

Summing up, Green Marketing and Green Consumer Behaviour (including WTP), although well studied, still have a generic character (Narula and Desore, 2016), sometimes without giving a definitive solution. Therefore, there is a need for future research as this field is still evolving (Sharma, 2021).

9. BIBLIOGRAPHY

Afonso, C., Gavilan, D., García-Madariaga, J., and Gonçalves, H. M. (2018). *Green Consumer Segmentation: Managerial and Environmental Implications from the Perspective of Business Strategies and Practices* (pp. 137–151). https://doi.org/10.1007/978-3-319-57318-2_9

AMA. (2017). *Definitions of Marketing*. https://www.Ama.Org/the-Definition-of-Marketing-What-Is-Marketing/.

Bian, T. (2020). A Review on Green Consumption. *IOP Conference Series: Earth and Environmental Science*, *615*(1), 012029. https://doi.org/10.1088/1755-1315/615/1/012029

Borin, N., Cerf, D. C., and Krishnan, R. (2011). Consumer effects of environmental impact in product labeling. *Journal of Consumer Marketing*, *28*(1), 76–86. https://doi.org/10.1108/07363761111101976

Dangelico, R. M., Nonino, F., and Pompei, A. (2021). Which are the determinants of green purchase behaviour? A study of Italian consumers. *Business Strategy and the Environment*, *30*(5), 2600–2620. https://doi.org/10.1002/bse.2766

Dangelico, R. M., and Vocalelli, D. (2017). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. *Journal of Cleaner Production*, *165*, 1263–1279. https://doi.org/10.1016/j.jclepro.2017.07.184

Davari, A., and Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors. *Journal of Strategic Marketing*, *22*(7), 563–586. https://doi.org/10.1080/0965254X.2014.914059

do Paço, A., Alves, H., Shiel, C., and Filho, W. L. (2014). An analysis of the measurement of the construct "buying behaviour" in green marketing. *Journal of Integrative Environmental Sciences*, *11*(1), 55–69. https://doi.org/10.1080/1943815X.2014.894082

Esmaili, M., and Fazeli, S. F. (2015). Surveying of Importance of Green Marketing Compared Purchase Budget and Preferred Brand when Buying by AHP Method. *Mediterranean Journal of Social Sciences*. https://doi.org/10.5901/mjss.2015.v6n4p388

European Parliament. (2021, November 30). *The EU's organic food market: facts and rules (infographic)*. Https://Www.Europarl.Europa.Eu/News/En/Headlines/Society/20180404STO00909/the-Eu-s-Organic-Food-Market-Facts-and-Rules-Infographic.

Ginsberg, J. M., and Bloom, P. N. (2004). Choosing the right green marketing strategy. *MIT Sloan Management Review*, *46*(1), 79–84.

Groening, C., Sarkis, J., and Zhu, Q. (2018). Green marketing consumer-level theory review: A compendium of applied theories and further research directions. *Journal of Cleaner Production*, *172*, 1848–1866. https://doi.org/10.1016/j.jclepro.2017.12.002

Grunert, K. G., Hieke, S., and Wills, J. (2014). Sustainability labels on food products: Consumer motivation, understanding and use. *Food Policy*, *44*, 177–189. https://doi.org/10.1016/j.foodpol.2013.12.001

Han, J.-W., Ruiz-Garcia, L., Qian, J.-P., and Yang, X.-T. (2018). Food Packaging: A Comprehensive Review and Future Trends. *Comprehensive Reviews in Food Science and Food Safety*, *17*(4), 860–877. https://doi.org/10.1111/1541-4337.12343

Henion, K. E., and Kinnear, T. C. (1976). *Ecological Marketing*. American Marketing Association.

Katt, F., and Meixner, O. (2020). A systematic review of drivers influencing consumer willingness to pay for organic food. *Trends in Food Science & Technology*, *100*, 374–388. https://doi.org/10.1016/j.tifs.2020.04.029

Ketelsen, M., Janssen, M., and Hamm, U. (2020). Consumers' response to environmentally-friendly food packaging - A systematic review. *Journal of Cleaner Production*, *254*, 120123. https://doi.org/10.1016/j.jclepro.2020.120123

Kotler, P. (2020). Marketing and Value Creation. *Journal of Creating Value*, *6*(1), 10–11. https://doi.org/10.1177/2394964320903559

Kumar, P., and Ghodeswar, B. (2015). Green Marketing Mix: A Review of Literature and Direction for Future Research. *INTERNATIONAL JOURNAL OF ASIAN BUSINESS AND INFORMATION MANAGEMENT*, *6*(3), 42–59. https://doi.org/10.4018/IJABIM.2015070104

Lampe, M., and Gazda, G. M. (1995). Green marketing in Europe and the United States: An evolving business and society interface. *International Business Review*, *4*(3), 295–312. https://doi.org/10.1016/0969-5931(95)00011-N

le Gall-Ely, M. (2009). Definition, Measurement and Determinants of the Consumer's Willingness to Pay: A Critical Synthesis and Avenues for Further Research. *Recherche et Applications En Marketing (English Edition)*, *24*(2), 91–112. https://doi.org/10.1177/205157070902400205

Lusch, R. F., and Vargo, S. L. (2014). *Service Dominant Logic: premises, perspectives, possibilities*. Cambridge University Press.

Magnier, L., Schoormans, J., and Mugge, R. (2016). Judging a product by its cover: Packaging sustainability and perceptions of quality in food products. *Food Quality and Preference*, *53*, 132–142. https://doi.org/10.1016/j.foodqual.2016.06.006

Milovanov, O. (2015). Marketing and Sustainability: Identifying the Profile of Green Consumers. *Strategic Management*, *20*, 54–66.

Mishra, P., and Sharma, P. (2014). Green marketing: Challenges and opportunities for business. *BVIMR Management Edge*, *7*(1).

Narula, S. A., and Desore, A. (2016). Framing green consumer behaviour research: opportunities and challenges. *Social Responsibility Journal*, *12*(1), 1–22. https://doi.org/10.1108/SRJ-08-2014-0112

NASA. (2022, May 16). *Climate Change Threatens $2 Trillion "Blue Economy."* Https://Climate.Nasa.Gov/News/3174/Climate-Change-Threatens-2-Trillion-Blue-Economy/?Category=applied_science.

Ottman, J. A., Stafford, E. R., and Hartman, C. L. (2006). Avoiding Green Marketing Myopia: Ways to Improve Consumer Appeal for Environmentally Preferable Products. *Environment: Science and Policy for Sustainable Development*, *48*(5), 22–36. https://doi.org/10.3200/ENVT.48.5.22-36

Padel, S., and Foster, C. (2005). Exploring the gap between attitudes and behaviour. *British Food Journal*, *107*(8), 606–625. https://doi.org/10.1108/00070700510611002

Papaoikonomou, E., Ryan, G., and Ginieis, M. (2011). Towards a Holistic Approach of the Attitude Behaviour Gap in Ethical Consumer Behaviours: Empirical Evidence from Spain. *International Advances in Economic Research*, *17*(1), 77–88. https://doi.org/10.1007/s11294-010-9288-6

Paul, J., and Rosado-Serrano, A. (2019). Gradual Internationalization vs Born-Global/International new venture models. *International Marketing Review*, *36*(6), 830–858. https://doi.org/10.1108/IMR-10-2018-0280

Peattie, K. (2001a). Towards Sustainability: The Third Age of Green Marketing. *The Marketing Review*, *2*(2), 129–146. https://doi.org/10.1362/1469347012569869

Peattie, K. (2001b). Golden goose or wild goose? The hunt for the green consumer. *Business Strategy and the Environment*, *10*(4), 187–199. https://doi.org/10.1002/bse.292

Peattie, K., and Crane, A. (2005). Green marketing: legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal*, *8*(4), 357–370. https://doi.org/10.1108/13522750510619733

Phillips, L. (1999). Green attitude. *American Demographics* , *21(4): 46–47*.

Polonsky, M. J., and Rosenberger III, P. J. (2001). Reevaluating green marketing: a strategic approach. *Business Horizons*, *44*(5), 21–30.

Rana, J., and Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, *38*, 157–165. https://doi.org/10.1016/j.jretconser.2017.06.004

Rejeb, A., Rejeb, K., and Keogh, J. G. (2022). The Circular Economy and Marketing: A Literature Review. *ETIKONOMI*, *21*(1), 153–176. https://doi.org/10.15408/etk.v21i1.22216

Rust, R. T. (2020). The future of marketing. *International Journal of Research in Marketing*, *37*(1), 15–26. https://doi.org/10.1016/j.ijresmar.2019.08.002

Rust, R. T., and Huang, M.-H. (2014). The Service Revolution and the Transformation of Marketing Science. *Marketing Science*, *33*(2), 206–221. https://doi.org/10.1287/mksc.2013.0836

Scott, L., and Vigar-Ellis, D. (2014). Consumer understanding, perceptions and behaviours with regard to environmentally friendly packaging in a developing nation. *International Journal of Consumer Studies*, *38*(6), 642–649. https://doi.org/10.1111/ijcs.12136

Shao, J., and Ünal, E. (2019). What do consumers value more in green purchasing? Assessing the sustainability practices from demand side of business. *Journal of Cleaner Production*, *209*, 1473–1483. https://doi.org/10.1016/j.jclepro.2018.11.022

Sharma, A. P. (2021). Consumers' purchase behaviour and green marketing: A synthesis, review and agenda. *International Journal of Consumer Studies*, *45*(6), 1217–1238. https://doi.org/10.1111/ijcs.12722

Taufique, K. M. R., Vocino, A., and Polonsky, M. J. (2017). The influence of eco-label knowledge and trust on pro-environmental consumer behaviour in an emerging market. *Journal of Strategic Marketing*, *25*(7), 511–529. https://doi.org/10.1080/0965254X.2016.1240219

Taufique, K. Md. R., and Vaithianathan, S. (2018). A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *Journal of Cleaner Production*, *183*, 46–55. https://doi.org/10.1016/j.jclepro.2018.02.097

Wei, S., Ang, T., and Jancenelle, V. E. (2018). Willingness to pay more for green products: The interplay of consumer characteristics and customer participation. *Journal of Retailing and Consumer Services*, *45*, 230–238. https://doi.org/10.1016/j.jretconser.2018.08.015

White, K., Habib, R., and Hardisty, D. J. (2019). How to SHIFT Consumer Behaviors to be More Sustainable: A Literature Review and Guiding Framework. *Journal of Marketing*, *83*(3), 22–49. https://doi.org/10.1177/0022242919825649

Yam-Tang, E. P. Y., and Chan, R. Y. K. (1998). Purchasing behaviours and perceptions of environmentally harmful products. *Marketing Intelligence & Planning*, *16*, 356–362.

Zhang, B., Fu, Z., Huang, J., Wang, J., Xu, S., and Zhang, L. (2018). Consumers' perceptions, purchase intention, and willingness to pay a premium price for safe vegetables: A case study of Beijing, China. *Journal of Cleaner Production*, *197*, 1498–1507. https://doi.org/10.1016/j.jclepro.2018.06.273

Zhang, X., and Dong, F. (2020). Why Do Consumers Make Green Purchase Decisions? Insights from a Systematic Review. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*, *17*(18). https://doi.org/10.3390/ijerph17186607