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**Consumers' perceptions toward eco-friendly food packages: A review of theories, models, and recent studies**

*Las percepciones de los consumidores hacia los empaques de alimentos ecológicamente amigables: Una revisión de teorías, modelos y estudios recientes*

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### **ABSTRACT**

Packaging has an important role in influencing purchasing decisions. But, at the same time, packaging waste poses serious environmental problems, and the increasing consciousness of consumers toward ecological matters raises the demand for ecological products and eco-friendly or green packaging. Thus, packaging sustainability denotes a significant issue for both industrials and retailers. Enterprises not only must consider packaging improvements to reduce materials to enhance the recycled content. Nowadays, three trends are driving food and beverage packing design: rightsizing, sustainability, and food waste. In addition, any intended improvement in packaging design should study a number of key dimensions related to consumers' perceptions, among others that affect their purchase intention and willingness to pay. The purpose of this research is to review main theories of consumer behavior and models of consumer responses to packaging, as well as to address recent studies related to consumers' perception of ecological packaging of food products, in order to outline alternatives for future studies on this relevant topic with environmental and business practice implications.

**KEYWORDS:** Eco-friendly Package, consumer, behavior, purchase intention, purchase, decision.

### **RESUMEN**

El empaquetado juega un papel importante para influir en el consumidor en sus decisiones de compra. Pero, al mismo tiempo, los desechos de los empaques representan graves problemas medioambientales, y la creciente concienciación de los consumidores hacia el cuidado del entorno eleva la demanda de productos y envases ecológicos. Por lo tanto, la sostenibilidad del empaque representa un tema de interés actual y relevante para las industrias. Las empresas deben considerar mejoras en el empaque de sus productos para reducir materiales dañinos y mejorar el contenido de reciclado. En la actualidad, tres tendencias están impulsando el diseño de envases de alimentos y bebidas: el tamaño correcto, la sostenibilidad y el desprecio de alimentos. Asimismo, cualquier mejora que se pretenda en el diseño de los envases debe estudiar una serie de dimensiones clave relacionadas con las percepciones de los consumidores, entre otras, que inciden en su intención y decisión de compra. El propósito de esta investigación es revisar las principales teorías del comportamiento del consumidor y los modelos de respuesta del consumidor al empaque, así como abordar estudios recientes relacionados con la percepción de los consumidores sobre los envases ecológicos de productos alimenticios, para así ilustrar

alternativas de futuros estudios sobre este tema de actualidad con implicaciones medioambientales y para la práctica empresarial.

**Palabras Clave:** Empaque ecológico, consumidor, comportamiento, decisión de compra.

## INTRODUCTION

### *Background*

Nowadays, the topic of environmental protection and consciousness toward the damage of natural resources has become even more relevant (Koenig-Lewis et al., 2014). Packaging waste has received main attention from environmental activists, consumers, policymakers, and enterprises (Nguyen et al., 2020; Steenis et al., 2017), in fact is in the current sustainability agenda. Consumers are progressively concerned about the environmental consequences of packaging in their daily consumption (Prakash & Pathak, 2017; Nguyen et al., 2020), due to the increasing and alarming levels of pollution. Hence, packaging sustainability denotes a critical topic for enterprises (Magnier & Crié, 2015). The increasing understanding of consumers concerning environmental problems has raised the demand for environmentally friendly or green products (Singh & Pandey, 2018; Ramesh & Samudhra Rajakumar, 2019). Food packaging instigates an escalating worry for the environment because of its high production volume, brief usage period, and harms linked to waste management and littering (Geueke et al., 2018). Therefore, whichever decrease in packaging waste aids to the goals of sustainability, including cleaner production, reduction, reuse, and recycling (Herbes et al., 2018). Accordingly, product redesign supports the aim of the circular economy to decrease the environmental impact of food packaging (Fernandes et al., 2020; Geueke et al., 2018).

In line with the sustainability agenda, enterprises (particularly those with a global presence) are concentrating on packaging innovations or enhancements to diminish harmful materials, increase reutilized contents, and increase more renewable resources (Prakash & Pathak, 2017; Kulshreshtha et al., 2019; Flores-Rivera et al., 2019). In addition, interest in environmentally friendly packaging has grown considerably in the last decade (Palma-Ruiz et al., 2020; Herbes et al., 2020). However, consumers have different opinions and limited knowledge about ecological packaging and materials (biodegradability and recyclability) as well as market appeal (appealing design and fair price) (Nguyen et al., 2020). Hence, firms are focusing on enhancing environmental quality while promoting their products (Li, 2020).

In terms of Corporate Social Responsibility (CSR), companies are addressing environmental concerns (Kulshreshtha et al., 2019; Arzubiaaga et al., 2019). CSR is commonly

described as pro-social corporate efforts (Sen & Bhattacharya, 2001), at the same time, becoming a business trend across several industries (Wei et al., 2018). Such a trend has encouraged the food industry to advance more socially responsible alternatives (Wei et al., 2018).

Green marketing is defined as a company's dedication to developing safe, environmentally friendly products through the use of recyclable and easily decomposable packaging, improved pollution control strategies, and more efficient energy use (Mukonza & Swarts, 2019). Environmentally Conscious Making (ECM) is focused with establishing ways for manufacturing products that meet environmental norms and regulations, from conceptual design to final delivery to consumers, and finally to End of Life (EOL) disposal (Ilgin & Gupta, 2010).

Green marketing has become increasingly important as a strategy of establishing a competitive advantage over competitors. A company's business strategy is developed in response to changing market needs, and green marketing has gotten a huge boost thanks to the resurgence of environmental concern among customers (Arseculeratne & Yazdanifard, 2014). Consumer-driven development of environmentally friendly packaging that can be used in long-term packaging strategies (Nguyen et al., 2020). Environmentally friendly or "green" products are still a niche sector, despite the fact that producing and consuming more environmentally friendly items is a vital step toward creating more sustainable lifestyles (Ketelsen et al., 2020).

Examples can be found across the world, such as Dell switching to eco-friendly packaging materials for computers, Adidas using recycling materials for their product lines of shoes and apparel, McDonald's is adopting biodegradable paper for food packaging in their stores (Prakash & Pathak, 2017). Moreover, Walmart's efforts to become package-neutral by 2025 through 4Rs (Reduce, Reuse, Recycle, Rethink) programs also point to a good trend (Magnier & Crié, 2015), and Tetra Pak committing to a low-carbon circular economy in which the entire food chain has the least possible impact on the environment, investing more than 100 million euros in sustainable development and recycling infrastructure in 2018 (Tetra Pak, 2019). Also, by designing PlantBottle packaging to encourage recycling and limit the amount of material used in their packaging, the Coca-Cola Company supports projects that enable the recovery and reuse of their packaging (Magnier & Crié, 2015).

The growing popularity of events such as "Earth Day," support for activist organizations such as Greenpeace, and acceptance of environmental safety measures reflect increased consumer awareness (Singh & Pandey, 2018). Other scholars have demonstrated that consumers believe that green products are worthwhile to purchase, are confident in green products, and want to purchase green products (D'Souza et al., 2019).

Consumer perceptions, behaviors, and habits, as well as consumer norms, attitudes, environmental concerns, social responsibility impact, purchase intentions and willingness to pay, and the relationship between the size of packaging and the amount of product consumed, should all be considered when making packaging improvements (Ajzen, 2012; Gustavo et al., 2018; Kulshreshtha et al., 2019; Wei et al., 2018).

The purpose of this research is to review the main theories and models of consumer behavior, as well as address recent studies related to consumers' perception of ecological packaging of food products and influence consumers' intention and decision to purchase.

## **THEORETICAL BACKGROUND**

### *Environmentally friendly packaging*

Ecologically friendly or environmentally conscious packaging (also known as green packaging, eco-friendly packaging, or sustainable packaging) has become increasingly popular in recent years (Herbes et al., 2018). Green consumers are those who practice environmentally friendly behavior and choose to buy green goods over non-green goods (Ramesh & Samudhra Rajakumar, 2019). Consumers with ecological awareness seek information about the production process of goods or services, and the ecological premises of the company or organization involved (Monteiro et al., 2012). Consumers are worried about sustainability, and they are particularly concerned about their carbon footprint and its environmental impact (Grönman et al., 2013).

Packaging materials, production technique, and market appeal can all be used to categorize consumer perceptions of eco-friendly packaging (Nguyen et al., 2020). Emotions are also important drivers influencing pro-environmental purchase decisions (Koenig-Lewis et al., 2014). In-store purchase decisions for food products are characterized by low participation and impulsive processes, and packaging plays a crucial role in influencing these decisions (Liao et al., 2015).

Packaging is defined as a coordinated system for preparing goods for handling, transit, storage, sale, consumption, and recovery in a safe, efficient, and effective manner. Packaging also has functions such as protecting the product against damages, preserve, contain, and facilitate loading, transportation, and logistics issues, and finally to provide the necessary information and product visibility to the client, establishing a communication/sell function (Mejía et al., 2015; Fraser, 2018). Furthermore, sustainable packaging must be beneficial, safe, and healthy for people throughout its life cycle: it must be sourced, manufactured, transported, and

recycled using renewable energy, maximize the use of recycled source material, use clean production technologies and best practices, be made from safe materials throughout its life cycle, be physically designed to optimize materials and energy, and be effectively recovered and utilized in biological and industrial closed-loop systems (Magnier & Crié, 2015).

The environmental benefit of sustainable packaging is determined not just by the packaging's qualities, but also by consumer willingness to buy sustainably packaged goods. Additionally, the exact design solutions employed to make packaging more sustainable are likely to influence consumer response (Steenis et al., 2018). In fact, consumers are prepared to pay a higher price for ecologically friendly food goods, according to certain studies (Chen et al., 2018).

Food and beverage package design is currently influenced by three trends: right-sizing, sustainability, and food waste (Fraser, 2018). According to Fraser (2018), rightsizing is the packaging industry's response to the global obesity epidemic; health and wellness concerns are known to influence consumer purchasing decisions; as a result, portion/calorie control is also driving sales of packaged foods and beverages in single-serving container size, and it is not surprising that snack food and soft drink product manufacturers are leaders in rightsizing packaging containers, essentially packaging for single-serving containers.

The right-size trend is also influenced by changes in eating habits, with many consumers now eating at home, work, school, and on the go. As a result, packaged foods must fit into pockets, backpacks, purses, and other small spaces while still being of acceptable quality while being held for these purposes. Some feel that better transportation/containment, shelf-life extension, product protection, reclose features, and rightsizing can help the packaging industry play a vital role in decreasing food loss and waste (Fraser, 2018, p. 228). For example, the Winning on Reducing Food Waste Initiative was established in October 2018 by the US Department of Agriculture (USDA), the US Environmental Protection Agency (EPA), and the US Food and Drug Administration (FDA). The agencies reaffirm their common commitment to achieving the goal of halving food loss and waste in USA by 50% by 2030 (U.S. Environmental Protection Agency, 2019).



**Table 1. Summary of definitions and conceptualizations of environmentally friendly packaging**

Authors	Definition or conceptualization	Context
Zakersalehi & Zakersalehi (2012)	Green packaging: Packaging plays an important role in product marketing and delivery. The packaging of products at the point of sale can be a critical factor in a customer's buying decision.	Malaysia
Rokka & Uusitalo (2008)	Environment-friendly package: Functional package qualities such as ease of use, design, and aesthetics have been at the forefront in the choice of packaging - a choice made when the desired product comes in different packages.	Finland
Gustavo et al. (2018)	Sustainable packaging: The extraction of raw materials, manufacture, shipping, and post-consumption disposal all have an impact on packaging's life cycle.	Brazil
Prakash & Pathak (2017)	Eco-friendly packaging/Sustainable packaging: Throughout its life cycle, it is helpful, safe, and healthy for individuals and communities. It is sourced, manufactured, transported, and recycled using renewable energy and meets market performance and cost criteria. It is made with clean production technologies and best practices and maximizes the usage of recycled source material. It is manufactured from materials that are healthy throughout the whole life cycle, is physically intended to maximize materials and energy efficiency, and is effectively recovered and employed in biological and industrial closed-loop cycles.	India

**Source: Authors' own elaboration**

### **MAIN THEORIES OF CONSUMER BEHAVIOR**

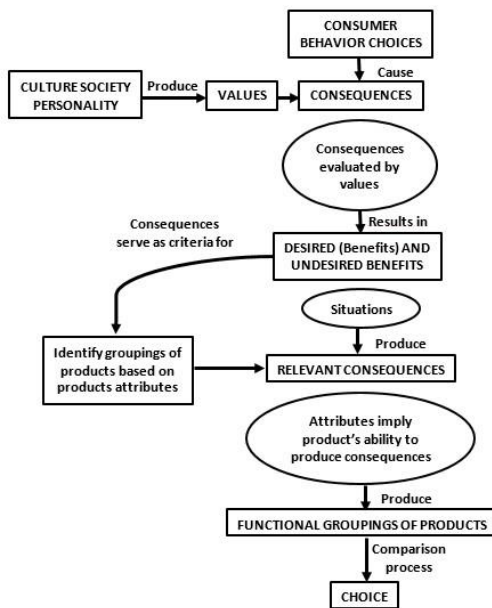
Some theories have been used in marketing research to explain consumers' perceptions to predict which factors are significant in the purchase decision or purchase intent. Consumer behavior is described as the mental and physical behaviors that customers engage in in order to make decisions about paying for, purchasing, and using products and services (Sheth, 2021).

### The means-end theory

Several theories have been developed to predict the consumers' behavior towards the purchase intention, such as the means-end chain theory (Gutman, 1982). This theory explains that consumer's values assign importance (which is modified by the situation), inducing the consumer to consider the situation consequences to decide an action (behavior). The relevant outcomes of this person-situation interaction form the foundation of a functional category of products capable of producing the desired outcomes. These products are chosen based on their characteristics, which indicate their capacity to generate the desired outcomes while avoiding the undesirable outcomes (Gutman, 1982).

An examination of consumer values and attitudes toward specific packaging necessitates a knowledge of how such linkages form and function, which is where the means-end theory comes in handy (Bech-Larsen, 1996). The model is based on two fundamental assumptions about consumer behavior: (1) that values, defined here as desirable end-states of existence, play a dominant role in guiding choice patterns, and (2) that people cope with the enormous diversity of products that could satisfy their values by grouping them into sets or classes to reduce choice complexity (Gutman, 1982).

**Figure 1. The Means-End model**



**Source: Gutman (1982)**

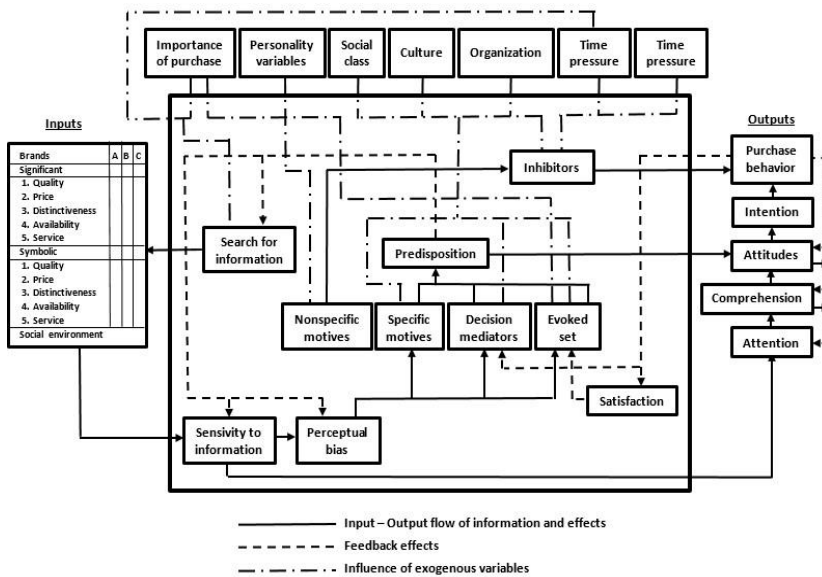
*Theory of buyer behavior*

The theory of buyer behavior (Howard & Sheth, 1969) also explains the buyer behavior process. A buyer's brand-choice decisions are made up of three components: (1) a set of motives, (2) various different courses of action, and (3) decision mediators that match the motives with the alternatives. Motives are unique to a product category and represent the buyer's fundamental demands. The many brands that have the ability to satisfy the buyer's motives are the alternatives (Howard & Sheth, 1969).

Other factors influence purchase intent, such as the endowment effect, which is used to forecast customer behavior and sentiments at the time of decision-making (purchase intention). This impact occurs when a person attributes a higher value to an item because he or she possesses it (Fraser, 2018; Kahneman & Tversky, 1979). Loss aversion, defined as a preference for avoiding a loss over gaining a gain, implies that an individual considers losses more than gains while making decisions (Fraser, 2018). As customers grow more aware of the environmental repercussions of packaging, it is likely that they will become more worried in the future (Bech-Larsen, 1996).

Many customers' decisions are influenced by habit, with the consumer selecting products from an "evoked set" (Howard & Sheth, 1969) of options available at the point of purchase that are also acceptable to the client (Bech-Larsen, 1996). The scenario modifies the relevance of each of the components that influence the decision-making process, causing the consumer to assess the repercussions in light of the situation's demands. The relevant outcomes of this person-situation interaction form the foundation of a functional category of products capable of producing the desired outcomes. These products are chosen based on their characteristics, which indicate their capacity to deliver desired outcomes while avoiding undesirable outcomes (Gutman, 1982).

Figure 2. Theory of Buyer Behavior

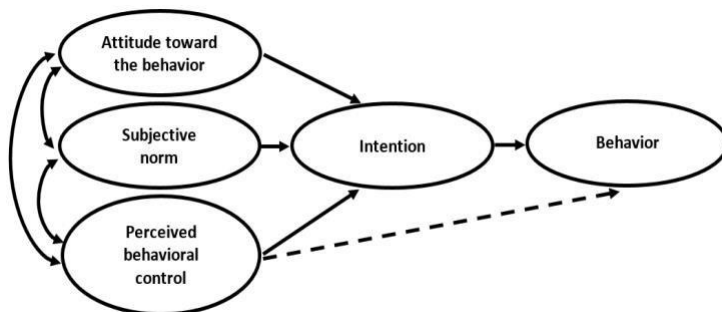


Source: Howard & Sheth (1969)

Theory of planned behavior

The theory of planned behavior (TPB) (Ajzen, 2012) is used to anticipate customer behavior based on purchase intention, which is influenced by attitudes toward behavior, subjective norms, and perceived behavior control. Ajzen established this hypothesis in 1985, and it is still very useful and well accepted today. Intentions are thought to capture the motivating factors that drive conduct; they are indicators of how hard someone are willing to try, and how much work they plan to put in to complete the behavior (Ajzen, 2012).

Figure 3. Theory of planned behavior (TPB)

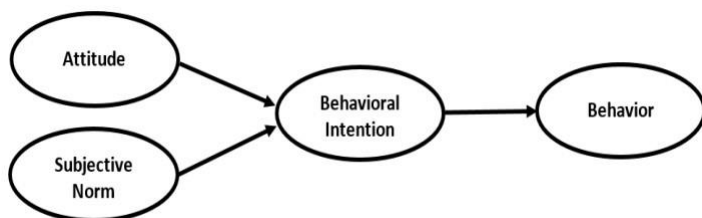


Source: Ajzen (2012)

*Theory of reasoned action*

The theory of reasoned action (TRA) (Ajzen & Fishbein, 1977) is a straightforward psychological model for predicting consumer behavior based on buyer intentions impacted by personal views and subjective norms. This hypothesis has long been utilized as a model for predicting behavioral intentions and actions. Behavioral intentions, which are intermediate antecedents to conduct, are a function of salient information or beliefs about the likelihood of completing a given behavior leading to a specific outcome, according to the theory (Madden et al., 1992).

**Figure 4. Theory of Reasoned Action (TRA)**



**Source: Madden et al. (1992)**

*Additional theories of consumer behavior*

Other theories found in the literature explain consumer behavior and have a particular relationship with the consumers' perceptions of eco-packaging affecting their purchase intention and decision-making. Table 2 lists those theories and briefly summarizes their relationship with eco-packaging.

**Table 2. Summary of additional theories related to consumer behavior**

Authors	Theory	Relationship with consumer's perception eco-packaging, purchase intention or decision
Kahneman & Tversky (1979)	Prospect theory: An analysis of decision under risk.	When the outcome of a food decision is known, prospect theory is a behavioral economics theory that describes how one selects between alternatives. This approach is based on a risk analysis, which means that decisions are made based on anticipated losses and profits rather than on the outcome.

Samuelson & Zeckhauser (1988)	Status Quo Bias in Decision Making	The majority of people like the status quo, which is known as status quo bias. Doing nothing or sticking to one's current or previous decision is known as status quo bias.
Thaler (1980); Grinblatt & Han (2005)	Mental Accounting Theory	This theory is founded on the idea that people mentally make transactions based on how satisfied they are with the process of doing so.
Lancaster (1966)	Lancaster's Theory of Consumer Demand	The notion that things exist or give birth to various qualities in set proportions, and that it is these traits, not the items themselves, on which the consumer's preferences are exercised, has been critical in developing this application.

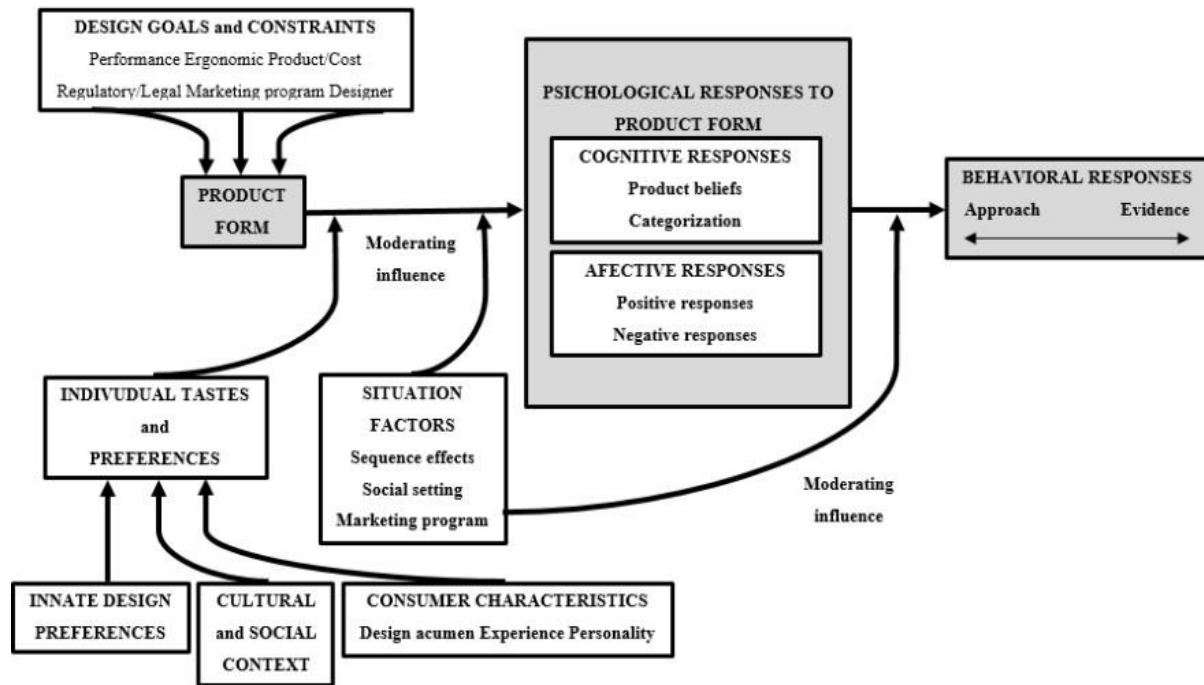
**Source: Author's own elaboration**

### **MAIN MODELS OF CONSUMER RESPONSES TO PACKAGING**

#### *Model of Bloch (1995)*

The product constitutes one of the classic four P's (Product, Place, Price, Promotion) of the marketing mix, and the most fundamental characteristic of a product is its exterior form or design (Bloch, 1995). This model focused on the idea that the package design can determine the product's marketplace success (Bloch, 1995; Fraser, 2018). The model of consumer responses to packaging from Bloch (1995) intends to predict behavioral responses based essentially on the product form, which is composed of designer goal and constraints such as performance, ergonomic, production/cost, regulatory/legal, marketing program, and design. Also, product form is influenced by personal factors (individual tastes and preferences, and situational factors) and psychological responses (cognitive and affective responses) to product form before a behavioral response.

Figure 5. A model of consumer response to product-form

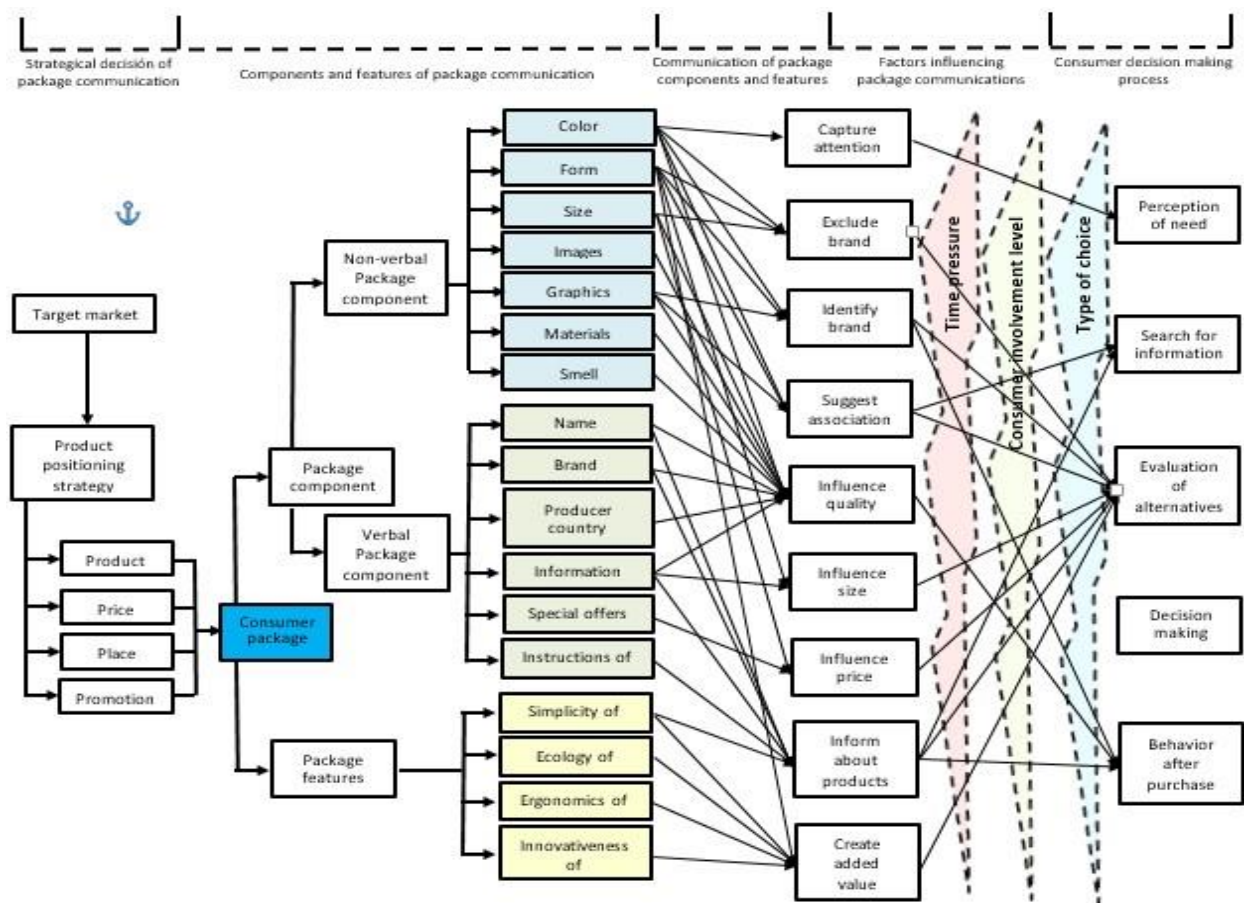


Source: Own elaboration based on Bloch (1995)

#### Consumer package communication model

Empirical studies looked at the impact of all packaging components on customer purchasing intent (Butkevičiene et al., 2008; Fraser, 2018). Based on Butkevičiene et al. (2008), the package's message is dictated by the product communication strategy, which is aimed at a certain target segment. Product positioning is accomplished by marketing mix element decisions. These choices are based on the fact that the packaging communicates with the consumer through verbal and nonverbal aspects and components.

Figure 6. Theoretical consumer package communication model



Source: Butkevičiene et al. (2008)

### RECENT STUDIES ON FRIENDLY FOOD PACKAGING AND CONSUMER BEHAVIOR

Research on eco-friendly food packaging has studied customers' perceptions and intentions similarly. Tables 4 and 5 provide a summary of recent studies on environmentally friendly food packaging and consumer behavior. To begin, a study in Malaysia (Mohd Isa & Xin Yao, 2013) used a choice-based conjoint approach to investigate consumer preference for green packaging in product choices, and a survey using a questionnaire was used to investigate the extent to which price sensitivity, attitude toward the brand, convenience of use of the packaging, green packaging, label, and product design influence customer purchase intention based on real product choices. Only product labeling and product design have a favorable and significant impact on consumer product choice, according to the study's findings. Consumer product choices were not influenced by green packaging, price, brand, or ease of use.



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Another study in Malaysia looked at how customers felt about green packaged goods and how likely they were to buy them (Zakersalehi & Zakersalehi, 2012). Consumer attitudes and purchasing intentions about green packaged foods are studied to help marketers and suppliers understand how to improve their green products, what type of green packaging they require, and how to get customers to acquire their products. In Malaysia, green packaging is a relatively recent concept. A mall-intercept personal survey was used to collect data for the study. There were a total of 134 surveys gathered. According to the findings, consumers' favorable sentiments, as well as demographics, might influence green food manufacturers' marketing strategies.

Consumer environmental choice is investigated by examining the relative importance of green packaging when compared to other relevant product qualities, according to research done in Finland (Rokka & Uusitalo, 2008). The empirical study is based on a choice-based conjoint analysis of 330 consumers' preferences for functional drink products. Consumer preferences for packaging, brand, price, and ease of use of everyday products varies, according to the findings. On the market, there are also several separate customer segments. In contrast to past research, they discovered that the largest customer category, one-third of consumers, prioritized environmentally labeled packaging as the most important factor in their decision. The findings highlight the growing significance of ethical and environmental considerations in product selection.

In addition, a study conducted in Denmark (Bech-Larsen, 1996) looked at consumers' attitudes on packaging and the importance of environmental and functional qualities in their purchasing decisions. The goal was to see if and how purchasing behavior might be altered in such a way that packaging's environmental impact could be reduced. The research focuses on consumers' perceptions of packing in general, as well as the packaging that they take home with them (primary packaging). The report continues with a discussion of the data's implications for environmental agencies as well as food and packaging producers.

Finally, a study conducted in India (Prakash & Pathak, 2017) investigated the impact of environmentally friendly packaging on consumer responses. The idea of reasoned action was used to identify main antecedents of eco-designed packaging behavior and to assess their relative importance. The data of 204 young Indian customers was analyzed and the proposed conceptual model was tested using structural equation modeling. The study's findings indicated that personal norms, attitude, environmental concern, and willingness to pay all influence buying intention toward eco-friendly packaging.

**Table 3. Summary of dimensions and measurements related to environmentally friendly food packages**

Authors	Dimensions	Measurements
Mohd Isa & Xin Yao (2013)	Six variables were investigated in this study: brand, price, green packaging, ease of use, labeling, and product design, all of which were found to have a positive and significant link with green packaging in consumer product choice.	A simple 12 questions with five-point Likert scales were designed to clarify the most important attributes for consumers' choices.
Zakersalehi & Zakersalehi (2012)	The first model only included attitude as an independent variable, but the second model included five independent factors (gender, age, income level, race, and attitude) as well as one dependent variable (purchasing intention).	A total of 134 survey questionnaires are collected in Malaysia used for data analysis.
Rokka & Uusitalo (2008)	The conjoint study focused on the following four attributes, all of which had two or three levels: brand, price, packaging, and package resealability (convenience of use).	The empirical study is based on a choice-based conjoint analysis of 330 consumers' preferences for functional drink products. To collect data, the subsample was given an internet questionnaire.
Bech-Larsen (1996)	Communicative (appearance, labeling), functional (closure), and environmental (material, amount, and reuse).	The research design consisted of four studies, all of which were conducted as consumer interviews but used four different data collection methodologies.

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Prakash & Pathak (2017)	Attitude, environmental concern, personal norms, willingness to pay, purchase intention.	A structured questionnaire was used to obtain the information. The questions were created by adapting elements from the existing literature and making minor changes. On a five-point Likert scale, all of the items were evaluated.
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**Source:** *Author's own elaboration*

**Table 4. Summary of methodologies and findings of studies related to environmentally-friendly food packages**

Authors	Methodology	Results	Theory used
Mohd Isa & Xin Yao (2013)	Quantitative – logistic regression, questionnaire-based survey.	Green packaging and ethical product characteristics have no discernible influence on consumer decision-making.	Lancaster's Theory of Consumer Demand
Zakersalehi & Zakersalehi (2012)	Quantitative – correlation analysis, multiple regression analysis, and ANOVA.	According to the findings, consumers' favorable sentiments, as well as demographics, might influence green food manufacturers' marketing strategies.	TPB

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Rokka & Uusitalo (2008)	Quantitative using an Internet-based survey.	Consumer preferences for packaging, brand, price, and ease of use of everyday products varies, according to the findings. On the market, there are also several separate customer segments. In contrast to past research, they discovered that the largest customer category, one-third of consumers, prioritized environmentally labeled packaging as the most important factor in their decision.	TPB and TRA
BechLarsen (1996)	Quantitative – Questionnaire-based survey.	In the case of industry, the creation of new food packaging should contain both functional and environmental improvements. According to several research, functional package aspects influence consumers' purchase decisions, whereas environmental characteristics appear to be of no practical significance. However, the findings also show that there is a segment of the population that has a strong preference for sustainable packaging, implying that there is a market for this form of packaging.	Based on three theories: Means-End Theory, TPB, and Theory of Buying Behavior.
Prakash & Pathak (2017)	Quantitative – Structural equation modeling.	The relevance of TRA for Indian customers in green buying intention was validated by the study, which found that attitude and personal norms have a substantial impact on purchase intention for eco-friendly packaging.	TRA was modified adding environmental concern and willingness to pay.

**Source: Authors' own elaboration**

## CONCLUSIONS

The literature review allows researchers to gather a more complete vision of the theories, models, and contextual factors that may affect the purchase decision making of eco-friendly or green packaging products. This research contributes to outline and review the relevance of fulfilling certain product packaging trends and assessing the consumers' perceptions. The study and precise market knowledge of the consumers' perception of eco-friendly packaging will certainly assist enterprises to improve their marketing strategies, and sustainable product and packaging development. This research outlines implications for further study related to marketing, international business, sustainable ecology, social responsibility, social welfare, among others, aiding companies to focus on the packaging trends, design, and eco-friendly characteristics that consumers are more interested in and mostly influence their purchase decision by meeting the consumers' demands, and acting socially responsibly by being friendly to the environment and caring for the society in general. Further research can address the study of eco-packaging from a particular theoretical perspective, in addition to the most used theories in recent studies, such as the theory of planned behavior (TPB) or the theory of reasoned action (TRA). Additional methodological approaches can be also explored to include more sophisticated statistical methods, and more importantly incorporate mixed methods and qualitative techniques. Different populations in distinctive contexts can be further studied, such as developing countries in Latin America. In addition to considering the relevant regulations in different contexts to product compliance and packaging materials and labeling. As a result, there are plenty of opportunities to promote and advance the study of eco-friendly or green packaging by considering additional factors that affect consumers' purchase decision making.

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