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NUDGING AS A MARKETING STRATEGY

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ABSTRACT

The classic economic theory is based on individual's rationality when making decisions. Consequently, theoretically speaking, individuals have sufficient knowledge and abilities to take the most convenient and best decisions. Nevertheless, in the last decades, it has been demonstrated the irrationality of people in rulemaking, governance, and decision-making, casting doubts about the possibility of making interventions to modify individuals' behaviour to improve their social and self-welfare. As a result, it has emerged behavioural economics, which focus on the many different factors and processes that affect decision-making in the pursuit of the most beneficial and optimal behaviour, and with it appeared nudges, which are a mechanism of soft intervention really helpful and efficient in changing individuals' behaviour. This paper analyses and reviews the branch of nudging in the field of behavioural economics, through the author's Cass R. Sunstein and Richard H. Thaler perspective, developed in their book "Nudge: Improving decisions about health, wealth, and happiness". In addition, a study of the application of nudges in different fields like marketing, society, wealth, and environment would be presented; also, it would be developed some criticism and limitations that fall upon the nudging theory.

Key words: Nudging, libertarian paternalism, architecture of choice, marketing mix

RESUMEN

La teoría económica clásica se basa en la racionalidad del individuo a la hora de tomar decisiones. En consecuencia, teóricamente hablando, los individuos tienen conocimientos y habilidades suficientes para tomar las decisiones más convenientes y mejores. Sin embargo, en las últimas décadas se ha demostrado la irracionalidad de las personas en la elaboración de normas, y en la toma de decisiones, lo que arroja dudas sobre la posibilidad de realizar intervenciones para modificar el comportamiento de los individuos con el fin de mejorar su bienestar social y personal. Ante esto surge la economía del comportamiento que se centra en los muy diversos factores y procesos que afectan a la toma de decisiones en la búsqueda de un comportamiento más beneficioso y óptimo, y con ello surgen los nudges que son un mecanismo de intervención blanda realmente útil y eficaz para cambiar el comportamiento de los individuos. Este trabajo analiza y revisa la rama del nudging en el campo de la economía del comportamiento, a través de la perspectiva del autor Cass R. Sunstein y Richard H. Thaler, desarrollada en su libro "Nudge: Improving decisions about health, wealth, and happiness". Además, se presentaría un estudio de la aplicación de los nudges en diferentes campos como el marketing, la sociedad, las finanzas, la salud, y el medio ambiente; también se desarrollarían algunas críticas y limitaciones que recaen sobre la teoría del nudging.

Palabras clave: nudging, paternalismo libertario, arquitectura de decisiones, marketing mix

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1. INTRODUCTION

As individuals, we make decisions on a daily and continuous basis, even unconsciously. The way in which we make decisions is influenced by numerous factors, more than just the economic ones, so we do not always take actions or make decisions rationally, as classical, and neoclassical economists suggested (Maletta, 2010). According to neoclassical economic theories, economic agents are characterised by maximising their own welfare and utility, by always assessing the costs and benefits of their future actions. As a result, agents are capable to make rational decisions following their own interests. Within these models, agents have been called *Homo economicus*, or *Econs* that is, individuals driven by maximising utility and satisfying their own interests, making, and choosing good decisions (Thaler and Sunstein, 2008). As a consequence, during the 1980s, some economists began to develop new, and more realistic models in order to understand the psychology of human behaviour (Thaler, 2016). This gave rise to a new type of economic agent, the individual who makes mistakes, who makes bad decisions, coined by the authors Richard Thaler and Cass Sunstein (2008) in their book "Nudge: Improving decisions about health, wealth, and happiness" as *Humans* (Thaler and Sunstein, 2008). Consequently, of the insertion of psychology into the economy, behavioural economics emerged, and with it, new understandings, and fields of study in economic theory.

The study of behavioural economics incorporates knowledge from psychology, neuroscience, and economics, resulting in an interdisciplinary study which aims to understand how and why human decisions and actions are made (Lea, 2015). For example, if you receive a message or see a sign saying that "9 out of 10 inhabitants pay their taxes on time", you will feel the need and pressure to pay them on time too, in case you do not. (Roldán, 2019) This works as a *nudge*, one of the main tools that behavioural economics uses to modify and reconduct people's behaviour, and thus improve their behaviour. In this specific case, the nudge may be imposed by the government to inform and to subtly push tax evaders to pay their taxes by the due date. However, it is not only the government who can use this behavioural tool. For example, a retailer who wants to sell certain goods will place those products where they can best be seen, for example in the centre of the shop (Thaler and Sunstein, 2008). Therefore, in the moment when a seller determines or influences customers' decisions by changing the way in which certain messages, goods, and services will be perceived by others, he or she becomes a so-called "choice architect" (Thaler and Sunstein, 2008). The term nudge was introduced in 2008 by the authors Richard Thaler and Cass Sunstein in their book "Nudge: Improving decisions about health, wealth, and happiness".

Nudges have gained great relevance during the last years, since *nudging* allows choice architects to influence the decisions and behaviours of individuals, which can "nudge" or "influence" them to take the right path making better choices for themselves. One of the main characteristics of nudges is that they do not they punish or constrain individuals from making a completely different decision to the ones they are being pushed or urged to make. In addition, nudging, as a behavioural tool, can be used as a public policy tool to improve, among others, the health and well-being of their inhabitants. However, it can also be an excellent tool for advertising and marketing in the field of private business.

In view of the above, this research has the aim of analysing and facilitate the understanding of the potential of nudges in the marketing field. More specifically, the possibilities that this instrument could provide when it comes to advertising or announcing certain information, products, or services, as well as the promising connection between the choice architecture and marketing mix. More precisely, the main objective of this paper is to facilitate the understanding of the characteristics of behavioural economics and nudges as a marketing and public policy tool. Since both can generate large changes in the behaviour of individuals without any kind of order or punishment.

To do so, firstly, the term nudge and its origins in the theory of libertarian paternalism will be introduced and explained, allowing to develop afterwards the concept of "decision architecture". Secondly, it will be presented and explained the types of nudges, their use through the marketing mix theory, and some examples. Finally, some nudging criticism and limitations will be described, with the aim of offering a broader perspective, to finally proceed to the conclusion remarks and some proposals of possible nudges.

2. BEHAVIOURAL ECONOMICS

Traditional economics are grounded on theoretical models which assume that individual's decisions are based on rationality and utility maximisation (weighting costs and benefits) (Maletta, 2010). Nevertheless, it was in the eighteen century when Adam Smith in "The Theory of Moral Sentiments" introduced the psychological perspective in economics, arguing that the human economic decision-making is influenced by factors such as passions, self-interest, justice, and fairness values (Ashraf et al., 2005). Besides, individual's decisions are limited by the amount of information, the time to make the decision, and cognitive biases (Simon, 1982).

Adam Smith introduced ideas that continue to be part of behavioural economics today. Among them, overconfidence, loss aversion and self-control are elements that make the distinction between “*econs*” and “*humans*”, showing that humans are driven by impulses, passions, control issues or moral values (Ashraf et al., 2005). After Adam Smith, other economists followed him, by introducing small hints of psychology into economics, but without altering the basic principles of economics, among them we can find Irving Fisher and Vilfredo Pareto in the early part of the 20th century, who introduced the human factor in the decision-making process (Ashraf et al., 2005). During the second half of the century, it stands out Herbert Simon, who coined the term “bounded rationality” to refer to the limited capacity of humans in the decision-making process, mainly because of the information and the time available to make the decision (Camerer and Loewenstein, 2002). Nevertheless, the real changes in the economic theory did not appear until the 70’s and 80’s, when the long-standing model of rational behaviour began to be questioned (Witynski, 2021). Among the forerunners of this model are Amos Tversky and Daniel Kahneman, with their “prospect theory”, where they identified that certain cognitive biases could influence on people’s decision making, leading them to systematic biases (Miller et al., 2016).

The integration of all these new economic perspectives and knowledge from sciences such as psychology and neuroscience into economic research resulted into a new trend in economics, “behavioural economics”(Echevarri and Lopera, 2020).. Behavioural economics’ empirical approach assumes that individual’s decisions are irrational, since they have values that impact in their decisions, and, from a cognitive point of view, they are limited (Miller et al., 2016). In addition, this discipline helps economists to understand and improve predictions about behaviour (Thaler, 2016), being particularly relevant in the political field. The intervention on the people’s decision-making processes through the application of behavioural economics is in the form of what Thaler and Sunstein have called “nudges”.

Due to the increased introduction of methods commonly associated with psychology into economics, as well as the recognition by economists that decision-making is not based on rational principles (Sugden, 2009), produced the begin and implementation of behavioural economics as governmental decision-making and policymaking. This introduction of behavioural economics into politics to improve people’s welfare leads to what has been commonly referred to as *soft paternalism* (Sugden, 2009). Thaler and Sunstein in their book introduce this idea, but using a different term, since they call the influence on the decisions of citizens and/or consumers by governments or decision-makers such as *libertarian paternalism* (Hansen, 2016).

2.1. LIBERTARIAN PATERNALISM

The political philosophy of libertarian paternalism is an idea developed by Thaler and Sunstein, in which they introduce a new strategy of guiding the decisions of individuals to ensure their welfare and well-being, but without any kind of coercion, since the individuals' freedom of choice is maintained (Thaler and Sunstein, 2008). The goal of libertarian paternalism is to avoid arbitrary or harmful effects produced by the lack of information, willingness, self-control problems, or capabilities; aiming to generate situations that will make people better off (Thaler and Sunstein, 2003).

On the one hand, the "libertarian" part of the concept refers to the authors' defence that people have complete freedom to do as they wish, since no one should force individuals to do anything. On the other hand, the "paternalist" aspect is based on the legitimacy of the influence of decisions' architects to ensure a better, longer, and healthier life. Meaning that the paternalistic part of the approach, refers to the need to guide or influence the decisions of individuals, because there are times when people make inferior or bad decisions. Humans are not completely rational, so their decisions may not always have the expected positive consequences. Taking good decisions would require complete cognitive capacity to store and process all the required information (Simon,1945), since this is not possible, the authors support the social influence exerted by decision architects to improve the humans' choices (Thaler and Sunstein, 2003).

Nevertheless, both authors argue that libertarian paternalism is soft since choices are not eliminated or blocked, maintaining the freedom of choice (Thaler and Sunstein, 2008). Furthermore, the libertarian paternalism understands that there is always an agent who must make some choices that influence the options of other agents, whether it is the government or a manager. Therefore, there is no substitute for libertarian paternalism, given that taking some of these influencing decisions is inevitable (Thaler and Sunstein, 2008). For example, someone must choose the default options of certain decisions, however, the individual is free to remove the default option chosen, though, removing it requires a greater effort than not removing it, which not everyone is willing to undertake (Thaler and Sunstein, 2003). In addition, when designing plans that may affect the decisions of others, one would want to weigh up all the options through a cost-benefit analysis to know the greatest number of options to take and to design the most appropriate strategy, however, such search and measurement of possibilities is very costly, as both the costs of carrying out such analysis and obtaining the information can be very high. Thus, a direct approach to decision design can hinder decision making. Consequently, what libertarian paternalism offers are indirect methods to approach welfare-promoting, without a starting point or situation analysis (Thaler and Sunstein, 2003).

In sum, what libertarian paternalism advocates is that individuals are influenced by the context in which they make their decisions, since the starting point from which decisions are made can be very varied and very difficult to know, and frequently, individuals have little defined what they want, either due to lack of information, desire, attitude or influences (Leonard, 2008). Libertarian paternalism aims to prevent people from making systematically wrong decisions, allowing people's behaviour to be steered towards better decisions for them (Thaler and Sunstein, 2008).

2.2. CHOICE ARCHITECTURE

Decision architects are those "responsible for organising the context in which individuals make decisions" (Thaler and Sunstein, 2008 p.2), and the way in which they intervene in our behaviour to ensure the best or most beneficial choices is through nudges.

The architecture of choice is made up of certain variables that influence, frame, and determine the final decision of individuals. Some of the variables are individual, as they depend on the personal context of each person, however, there is a collective context where the architecture of decisions works (White, 2018). The reason why choices can be influenced is because individuals are constantly making decisions, individual choices modify the possibilities of others, the decision architect can be an entrepreneur, a co-worker, a teacher, or even your parents. Consequently, the design of the decision architecture cannot be neutral (Thaler and Sunstein, 2008). In this sense, there is no point in adopting an "anti-nudging" position, since it is inevitable that people's decisions will be influenced by those of others, in a context of competition or within the organization (Hansen and Jespersen, 2013).

A clear example of decision architecture is the one offered by Thaler and Sunstein (2008) at the beginning of their book. The example they introduce is about a cafeteria manager in a large city school system, named Carolyn. She is a choice architect, because she is aware that depending on the placement of the food, she can increase or decrease the children's consumption of specific products. As a choice architect, she is exerting a great influence on children's decision-making, as she knows the different possibilities that architectures offer (Leonard, 2008). By modifying the order of the food, she is pushing children to consume certain foods to a greater or lesser extent, so she can increase the consumption of healthy foods to improve the health of the children, or not (Thaler and Sunstein, 2008). As a result, what Carolyn, and what choice architects in general, are doing is designing and bringing together the connections between decisions and decision-makers, facilitating, and ensuring good decision making (Sugden, 2009).

The choice architecture is the environment where decisions are made, and everyone who constructs or modifies that environment is a choice architect (Thaler, 2018).

3. NUDGE: INFLUENCING BEHAVIOR

At this point of the paper, it has been introduced the background on which the term nudging is based. Now, it will be developed and explained in depth the term nudge, its characteristics and the different types that can be found.

Firstly, the term nudge was introduced in the book “Nudge: Improving decisions about health, wealth, and happiness” written by Richard H. Thaler and Cass R. Sunstein. The term nudge refers to “any aspect of decision architecture that modifies people’s behaviour in a predictable way without prohibiting any choice or significantly changing their economic incentives” (Thaler and Sunstein, 2008 p.6). The main characteristic of a nudge is that it is not any kind of incentive, order, or prohibition; nudges simply suggest a certain decision or certain path, while maintaining the possibility of choosing other options. For that reason, what makes nudges advantageous and what differentiates them from a regular policy is their coercion avoidance and the maintenance of the freedom of choice, as their aim is not to manipulate, to confuse or to trick individuals (Sunstein, 2014), its goal is to “make life simpler, safer, or easier for people to navigate” (Sunstein, 2014 p.584). Nudging is possible as human behaviour is predictable (Thaler and Sunstein, 2008), therefore, the purpose of nudges is to make the “best” option more attractive or convenient for the decision maker, given that selecting that option will make them better off (Lin et al., 2017). However, nudges are mainly intended to improve individual's choices rather than addressing externalities, so it can be said that “nudges are behavioural solutions to behavioural problems” (Carlsson et al., 2019 p.2).

Furthermore, what makes nudges incredibly attractive from a policy-making perspective, it is that they can modify or influence individuals’ behaviour without using regulatory, being relatively cheap, easy, and just need small adjustments to promote specific behaviours (Nwafor et al., 2021). Nevertheless, the responses of individuals are influenced by the context in which they are surrounded, context involves factors such as education, culture, climate, individual experiences, social roles, organizational form, or the psychological and personal characteristics of the individuals (Nwafor et al., 2021). For that reason, there can be distinguished various types of nudges that will be used depending on the behaviour that is to be improved or influenced.

Nudges are an instrument that has a wide range of categories and varieties, as it is constantly growing. In Table 1 some of the nudges used in choice architecture are shown.

Table 1. Types of nudges.

Nudge category	Description	Possible Application/Example
Default choices	Implies the automatic selection of certain options, which will be applied for those individuals who do not make an active choice to change it. This may be the most successful nudge (Sunstein, 2014), since people tend to make the choices that require the least effort, an automatically selected default option allows individuals to avoid having to analyse and weight all possible options (Thaler and Sunstein, 2008).	Automatic enrolment in programs, for education, health, or savings. One of the clearest examples of default options occurs in the organ donation system. In some countries, the so called “opt-out” countries, organ donation is the default option, people in those countries must “opt-out” if they do not want their organs to be donated. In countries like Austria or Belgium, whose laws have the opt-out policies, have an organ donation rate higher than 90% (Davidai et al., 2012), whereas countries like Germany (where citizens must indicate that they consent to become an organ donor in case of accident) have an organ donation rate barely reaching 15% (Davidai et al., 2012).
Error reduction	As humans, individuals make mistakes constantly (Thaler and Sunstein, 2008), so simply designing a choice architecture that reduces the occurrence of common mistakes in their decision making is a useful nudge.	Warnings, graphics, or reminders. For example, the sound and sign that appears in cars when you are not wearing your seat belt.
Providing feedback	The decision makers provide individuals with information about their current behaviour or performance, or about the consequences of that behaviour. The aim of this nudge is to make people more aware of their choices and actions.	This type of nudge is tremendously common in the in the behaviour of individuals regarding environmental care. For example, to reduce excessive water consumption, households are provided with information about their water consumption compared to their neighbours through a bar chart. With this, households get information about whether their water consumption is excessive or lower than that of their neighbours. Consequently, when they know, for example, that their consumption is excessive, they will try to reduce their water consumption (Otaki et al., 2022).

<p>Structuring complex decisions</p>	<p>The decision strategy will vary according to the complexity and range of possibilities and options available. This nudge involves simplifying and restructuring the decision-making process into small and more manageable steps to improve understanding and facilitate decision-making, reducing the barriers. (Thaler et al., 2013).</p>	<p>Provide the possibility to filter by characteristics, or requirements. For example, when looking for holiday accommodation. On search websites there are thousands of results, however, to facilitate the search and find the type of accommodation that individuals want, they have filters with which to narrow down their search, such as maximum price, number of rooms, type of accommodation, certain accessories, etc.</p>
<p>Understanding Mappings</p>	<p>This nudge consists of “understanding the trade-off or mapping, between choice and well-being”. The comparison and choice between option, involves making trade-offs, it is what the authors in this nudge called “mapping”. Referring to simplifying and making the information more understandable so that the correspondence is established and leads to correct decision-making (Thaler and Sunstein, 2008 p.114).</p>	<p>For example, by transforming numerical information into units that can be translated into real use. One the examples given by Thaler and Sunstein (2008) is that when it comes to buying a digital camera, they are advertised by their megapixels; implying that more megapixels, the better pictures they take. However, this can lead to confusion for individuals given it all depends on the intended use. For that reason, to make more understandable and facilitate its election manufacturers may recommend instead of megapixels, the largest size to print those taken pictures. In this way, with the usual and manageable sizes for consumers, such as 10x15 or poster size, they would know what the maximum capacity and quality of such camera is (Thaler and Sunstein, 2008).</p>

Nudges would vary depending on the policy purposes but, in general, nudges can be grouped according to whether they change the default options, the physical environment, or if they provide the possibility to correct impulsive choices, or if they provide feedback about individuals' behaviour regarding those choices (Marchiori et al., 2016). Alternatively, the classification of nudges can also be simplified into two types of nudges, depending on their aim. On the one hand, pure nudges, which are used to influence individuals "to do the right thing", making the decision-making process easier (Carlsson et al., 2019 p.4). On the other hand, moral nudges, which, through psychological utility, reward individuals "doing the right thing" (Carlsson et al., 2019 p.5). In conclusion, all nudges in their many versions or forms, seek to assist individuals in the decision-making process, with the objective of ensuring the best choice for people's health, wealth, and happiness.

3.1. WHEN DO WE NEED A NUDGE?

Thaler and Sunstein (2008) argue that choice architecture and its effects are unavoidable, for that reason, the use of nudges is subject to the likelihood that these nudges are likely helpful and less likely harmful. The use of nudges can be applied to numerous fields, especially when the decision to be made contains high difficulties, either because it is an infrequent decision whose terms cannot be translated into simple terms, or its feedback is not immediate, or the decision is not a simple one (Thaler and Sunstein, 2008). The level of nudge that can be used in a decision-making process will depend on the susceptibility of people to be influenced by a nudge when making a decision, it is to say, the *nudgeability* of the decision (de Ridder et al., 2022). For that reason, the level of *nudgeability* would vary according to the cost and incentives related to the nudge needed (Gabaix et al., 2019). The trade-off between the cost and the size of nudges is what will determine whether to use a nudge or not, thus it would depend on the reduction of the negatively external effect and the direct positive effect on the individual's decisions (Carlsson et al., 2019).

4. NUDGES AND MARKETING

As explained in Section 3, a nudge is a tool of behavioural economics used by choice architects to frame and set the background conditions of individuals with the aim of ensuring that the decisions which are made they are in best interests of people's health, wealth, and well-being. However, it is also important to add that the use of nudges is common in marketing, and more precisely in social marketing (Inzerillo, 2022). Nudges can be used in the field of marketing, as it aims to identify, and meet human and social needs (Kotler and Keller, 2016).

More concretely, according to the American Marketing Association: “Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (Kotler and Keller, 2016 p. 27). It is essential to understand nudging under a marketing perspective as both aim to promote and encourage positive behaviour, besides, understanding nudges from a social marketing perspective can help policymakers to design better and more efficient interventions that are tailored to the specific needs and preferences of citizens (Chriss, 2015).

4.1. SOCIAL MARKETING

Marketing consists of identifying customers’ needs and desires, to create the goods and services that would satisfy the target audience (Kotler and Zaltman, 1971). However, in marketing it can be distinguished between two main branches: marketing management and social marketing. On the one hand, the marketing management is the term used to refer to all the processes and means of achieving desired responses from the target audience. Particularly, marketing management has been defined by Kotler and Keller, “as the art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value “(Kotler and Keller, 2016 p.27). On the other hand, social marketing introduces the variable society in the marketing activities, considering the role and impacts that marketing plays in the society (Kotler and Keller, 2016).

The concept of social marketing was introduced in the 1970s, by the authors Philip Kotler and Gerald Zaltman in their publication “Social Marketing: An approach to Planned Social Change” (Khanagar and Sampath, 2019). This new marketing discipline started when the authors realised that some non-business institutions started to use marketing tools to spread their institutional objectives, ideas, or attitudes (Kotler and Zaltman, 1971). Social marketing was defined by Kotler and Zaltman in 1971 as “the design, implementation, and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research” (Khanagar and Sampath, 2019 p.5). Thus, social marketing combines the tools and skills specified to marketing, as well as the knowledge about society, for the design of programmes and communications that generate or result into specific behaviours for a social good. As a result, the introduction of social marketing has allowed to expand the use marketing to more fields, as it was traditionally just related to the promotion of consumption (Soraghan, 2019).

Social marketing revolves around the individuals, generating improvements and processes in accordance with individuals' necessities, thus having a customer-focused approach. This customer-focus has a long-term perspective because it seeks to design programmes, messages, policies, solutions, etc., that modify or change people's behaviour towards the marketers' goals.

Social marketing can be applied in three different areas: downstream, midstream, and upstream. First, downstream is the term used to refer to the "influences on behaviour at an individual level", referring to the personality, or the personal experiences of individuals (Gordon, 2013 p.1526). This individual approach and focus on individual behaviour change, was the one studied until mid-1990s when the view of marketing was expanded to a more contextual and external one. The downstream social marketing technique is required when individuals need to be able to see the different benefits obtained from adopting the new behaviour and, therefore, alternatives and new motivations are required to achieve the desired behavioural change (Inzerillo, 2022). For example, Centres for Disease Control and Prevention (CDC) would target the smoking habits of individuals with a direct impact, hoping to reduce the number of smokers (Key and Czaplewski, 2017). Second, the midstream is the concept concerning the immediate environment, such as schools, workplaces, or the local community, which influence an individual's behaviour (Gordon, 2013). Midstream social marketing works to modify or influence the social environment of individuals, to encourage positive behaviour change. The third technique is the upstream, which refers to the institutions, policies, governments, laws, it is to say, the whole social system in which individuals live and behave (Gordon, 2013). Upstream social marketing technique is used to influence the policies and environmental conditions, which cannot be addressed with an individual perspective. By shaping the environmental context through influencing policy and regulation, a supportive environment and behavioural changes can be achieved (Kennedy et al., 2017). This technique is used, for example, to reduce tobacco consumption, or environmental issues like air pollution or climate change.

Furthermore, according to Craig Lefebvre and June Flora (1998), there can be highlighted seven elements of social marketing (Khanagar and Sampath, 2019) to deeply understand its composition and features:

- 1. Consumer orientation:** a consumer orientation to realize organizational goals, as it is essential to understand the context in which they start from to know beliefs, and knowledge.

2. **Behavioural goals:** measurable and specific goals to get to know the form and way that would influence in people's behaviour.
3. **Audience segmentation:** research in audience analysis and segmentation strategies, which is important to obtain knowledge about the distribution and communication channels to design the right message.
4. **Marketing mix:** the use of the marketing mix and blending product, price, place and promotion characteristics in the intervention planning and implementation to achieve specific goals.
5. **Exchange:** an emphasis on the voluntary exchanges of goal and services between providers and consumers.
6. **Competition:** A process tracking system with both integrative and control functions which can impact on individual's decisions and actions.

The social marketing approach can be employed in both in a smaller context, such as the behaviour of single individuals, and within a wider environment, such as the policies of a city or country. As a result, social marketing is a discipline that can address multiple areas to promote positive changes that generate benefits and improvements in the health, environment, and situation of individuals.

4.2. MARKETING MIX: THE 4Ps

Social marketing uses several models and methods to manage the decision making, among them, it particularly highlights the "marketing mix" model. This model introduces four variables, known as the "Four P's", to explain the components that markets must control to influence the behaviour of their target audience (Peattie and Peattie, 2003). A marketing mix would be helpful for managers as it allows to design a programme that identifies behavioural problems, as well as solutions, to change that behaviour through social marketing tools (Tapp and Spotswood, 2013).

The marketing mix concept was coined by the marketing and advertising teacher in the Harvard Business School, Neil H. Borden (Borden, 1984). The term was suggested to him by the Professor James Culliton (1948), when in one of his studies about manufacturers' marketing costs 1947-48 (Borden, 1984) he referred to the marketing costs as a "mixer of ingredients" (Grönroos, 1994). The concept "mixer of ingredients" was used by Culliton to refer to all the points of the process on which a marketing manager has to make decisions, such as channels of distribution, sales force, packaging, promotion, or advertising, in order to achieve the market conditions (Borden, 1984). As a result, the Borden's mixer of ingredients represents the elements or ingredients to design a marketing program, that is, a "marketing mix".

According to Borden, the marketing mix is “a list of important elements that bear on the marketing operation of a firm and to which the marketing manager must adjust in his search for a mix or program can be successful in the long or short term” (Borden, 1984 p.9). At first, the marketing mix model included twelve elements which managers must consider in every making decision. These elements, which may be scaled up or down depending on the objectives, policies, or marketing variables that can impact on the marketing program, include: “product, price, brand, channels of distribution, personal selling, advertising, promotions, packaging, display, service, physical handling; and fact finding and analysis” (Borden, 1984 p.9). According to Borden, the forces that should be analysed and studied to achieve a successful marketing mix are consumers’ buying behaviour, the trade’s behaviour, competitors’ position and behaviour, and governmental behaviour (Borden, 1984).

However, it was Jerome McCarthy (1964) who reformulate these variables into a simpler framework, creating the “Four P’s” model (Constantinides, 2006). The Four P’s model consist of “developing the right product backed by the right promotion and put in the right place at the right price” (Kotler and Zaltman, 1971 p.7). The variables of which it is made the model are the following ones:

- **Product:** in social marketing the variable product is not just a term used to refer to the physical or tangible thing, which is being bought, as it is used in most commercial marketing contexts. The social marketer also facilitates a product which the audience would find attractive, and desirable by selling “propositions” that would resolve their targets problems (Peattie and Peattie, 2003).
- **Price:** in social marketing the price is the monetary cost which consumers must pay, it is illustrated as the costs of changing the behaviour of the customers (Peattie and Peattie, 2003). The variable price represents all the costs that the buyer will incur to obtain the product, including money costs, opportunity costs, energy costs, or physic costs (Kotler and Zaltman, 1971).
- **Place:** commercial marketing relates the variable “place” with the physical location and distribution of the offering. However, in social marketing, “place” involves adapting and adjusting the accessibility, distribution, and response channels of the behaviour under consideration. As result, planning the place is essential, as through the way the product or service reaches the consumer the motivations can be translated into actions (Kotler and Zaltman, 1971).

- **Promotion:** this variable consists of making the product visible (Khanagar and Sampath, 2019). The promotion involves all the messages, public relations, personal selling, advertisement, media; it is to say, all the communication-persuasion instruments, that will bring the product closer and make it visible so that it can be desired by the audience (Kotler and Zaltman, 1971).

All in all, the marketing mix is a model which aims to facilitate putting into practice the marketing programme (Bennett, 1997). These elements can be controlled by the marketer to influence in the attitudes, knowledge, and behaviour of the target audience and the market (Peattie and Peattie, 2003). It has become one the more famous and used models into the marketing sector, however, it has been proposed some modifications and new criteria which lead to new models to implement at the time of trying to understand the target market.

4.3. OTHER METRICS OF MARKETING MIX

The marketing mix model has suffered from wide criticism as some authors claim that it is a model with a shortcoming view, and that can be obtained numerous outcomes with different marketing mixes in different marketing contexts (Rafiq and Ahmed, 1995). Moreover, its proliferation and expansion has led to the publication of multiple variations of this model. An alternative is the “Seven P’s” model, by Booms and Bitner’s (1981). This model extends the marketing mix model to consumer goods, and service marketing (Booms and Bitner, 1982). The need to change the marketing mix model according to the authors comes from the different needs that service marketing require. In service marketing, unlike in product marketing, the production and consumption processes take place at the same time. Therefore, the first impression, the message, as well as the environment in which this service is offered is essential for the consumer’s behaviour (Booms and Bitner, 1982). In addition, it is also important to adapt the Four P’s to the service marketing as the service marketing is not focus on the physical contact of the product, the consumer behaviour and expectations are influenced by the marketing messages and tangible elements (Booms and Bitner, 1982). The extended P’s to the Four P’s model are:

- **Participants:** service managers must control the behaviour of the consumer, but also the individuals who provide those service, and other possible customers in the service environment (Rafiq and Ahmed, 1995).
- **Physical evidence:** it involves the environment in which the service is delivered or provided and where customer and service provider interact (Booms and Bitner, 1982). In services the environment is a crucial variable as the quality of the service is influenced by tangible elements (Rafiq and Ahmed, 1995).

- **Process of service assembly:** all the mechanisms, procedures, and activities that the company uses to provide the service (Booms and Bitner, 1982).

All in all, with the Seven P's model the environment where the product, or service are provided is considered. However, it also can be found other model, called the "Five V's" which aims to offer five variables to the managers to help them to obtain a detailed understanding of the buyers. The Five V's stands out mainly because its vision is made from the eyes of the buyers, the "buyer disposition" for better understanding of their needs and wants (Bennett, 1997). The Five V's are the following ones:

- **Value:** represents all the elements in which the buyer can find valuable to be considered a source of supply. The value can be functional attributes like price, quality, results, reliability, or intermediaries, or more symbolic ones like brand status, uniqueness, prestige, or irreplaceability (Bennett, 1997).
- **Viability:** implies the distance, branding, reliability, affordability, or repetition, which affect the possibility that the individual becomes a source of supply (Bennett, 1997).
- **Volume:** involves considering the quantity, pack size, replication, divisibility, spares, or stock availability in advance and on behalf of the buyer to meet their needs (Bennett, 1997).
- **Variety:** the freedom of choice of the consumers. The variety can be influenced by the seasonality, the access to range, the order status, the packaging, the replacement, or abnormality (Bennett, 1997).
- **Virtue:** consists of holding the customers, through company-specific variables such as the service provided by the staff, the support, the friendliness, the product knowledge, or the operational and technical support. All these elements are the end of the marketing mix process, as it aims to turn the buyer into a regular consumer (Bennett, 1997).

The Five V's model locates the customer's perspective in the centre of the target criteria and defines five criteria of buyer disposition, which according to the authors is defined as "the process undertaken by the customer, consumer or client when attempting to source the supply of a product or service, or a combination of these two elements" (Bennett, 1997 p. 151). As a result, this model seeks to build lasting relationships between buyers and sellers (Bennett, 1997).

4.4. MARKETING MIX AND NUDGING

Social marketing is a discipline formed by psychological, sociological, anthropological, and communicative knowledge, which seeks to make valuable and significant contributions to behaviour change (Inzerillo, 2022), on the other hand choice architecture is an approach of behavioural economics that aims to influence and change undesirable people's behaviour using nudges. As a result, both are valuable principles that aim to change and influence individuals' behaviour, pushing them to desired outcomes (Chriss, 2015). Therefore, if both nudges and social marketing are used to influence and modify behaviour, it could raise the question of whether nudges are a social marketing technique. This question has been arisen in a practical way (Soraghan, 2019) given that both share their main objective, which is to influence or change the individual's behaviour, especially leading people towards better decisions about health or wellbeing (Chriss, 2015). More concretely, social marketing is usually applied in medical or health problems to encourage different behaviours of population while nudges have been usually applied in a wider range of areas, from health, finance, environmental issues, etc. Although their means may not have been the same, they both maintain the same end or objective.

Nevertheless, there is some debate as to whether nudges can be considered a technique of social marketing, such as marketing mix (Soraghan, 2019). On the one hand, social marketing transfers the principles of changing behaviour from the commercial to the social environment, aiming to promote social welfare, as nudge aims to. For that reason, social marketing is considered a concept that encompasses multiple techniques or policies that help people towards a better life. Among them are the techniques of behavioural economics, such as nudges, to influence uncertain and wary public toward desired behaviours (Chriss, 2015). On the other hand, nudge and social marketing discern from their specific messages, being unable to affirm that nudge is an exclusive technique of social marketing (Soraghan, 2019). Nudging aims to influence the individual's behaviour by designing specific environments that encourage individuals to change or correct their behavioural decisions (Soraghan, 2019), whereas social marketing integrates marketing mechanisms that make specific research and campaigns that address the specific needs to change the audience behaviour (Velema et al., 2017). In addition, the environmental intervention of nudging makes certain choice more attractive or easier, without the need for individuals to actively participate, it is to say, the implementation of nudges is done without prior discuss or debate whereas social marketing requires individuals' participation (Inzerillo, 2022). Overall, both nudging and social marketing seek to foster positive behaviours, however, the way to achieve them differs. Nudges can be used as a complementary technique to social marketing, for example, combining marketing mix variables with nudges.

4.4.1. Example of marketing mix and nudging

The combined use of marketing and nudges are marketing campaigns trying to enable individuals to make better decisions about their health, and the food they eat or to buy in certain establishments. For example, Velema et al., (2017) carried out a study, called “the worksite cafeteria 2.0” in which they prepare an intervention in a worksite cafeteria in the Netherlands to study the purchasing behaviour of employees aiming to generate healthier choices (Velema et al., 2017).

The strategies were concentrated and divided into the Four P’s: product, place, price, and promotion. For example, the strategies under the product variable to provide healthy food options were made by increasing the quantity of fruits, vegetables, water, and nudging by increasing the visibility of healthy food. The place variable was implemented by locating healthy products on eye level, at the beginning of the route, or filling the cash desk with fruit and vegetables, it is to say, by providing some visual signals or cues that encourage employees to make healthier choices. The price element included strategies like offering combos of healthy products, with which employees would get a drink and a piece of fruit at a relatively cheap price. Finally, under the promotion variable, the cafeteria promoted healthy products by using temporary campaigns in a stand, and by advertising healthy dishes and habits in displays and social media.

These modifications on the environment of the cafeteria encourage the target consumer to buy more fruit and vegetables, or at least reduce the quantity of unhealthy foods. As a result, this study shows that the combination of both techniques facilitates the purchase of healthier products, being an effective method to be implemented in the long-term. Demonstrating that marketing mix can be used to evaluate and create healthy food environments, and nudges can create cues to facilitate individuals to choose healthier options.

5. NUDGING IN ENVIRONMENTAL, SOCIAL, HEALTH, AND WEALTH POLICIES

Nudging has become a mechanism of great relevance for influencing the decisions making processes of individuals. The versatility and variety of nudges enables choice architects to apply this discipline in multiple areas to improve the well-being of households, consequently, there are numerous studies that use nudge techniques with the aim of improving health, reducing environmental impacts, improving worker’s finances, or to achieve improvements in society in general.

Hereunder, some examples of the application of nudging in different areas will be illustrated below to show how nudge can help to raise awareness and change practices that can improve the environment, the society, and the society's health and wealth:

5.1. WEALTH NUDGES

Firstly, as being *Humans* and not *Econs*, individuals have difficulties when it comes to saving, borrowing money, or knowing which financial option to choose (Thaler and Sunstein, 2008). One of the main decision problems that households have, is about how much to save for retirement (Thaler and Benartzi, 2004). According to the classical economic theory, individuals are able to predict how much money they are going to need when their retirement time arrives, as well as how much they need to save (Thaler and Sunstein, 2008). However, the truth is that humans are not able to predict their future, neither to calculate their future costs. Although some firms that offer contribution plans for their workers retirement, this plans usually require workers to actively join and to select the saving-rate. Despite the offering of contribution plans, some workers do not join these programs, having afterwards wealth problems as their pensions would be lower (Thaler and Benartzi, 2004).

Richard Thaler and Shlomo Benartzi (2004) designed a savings program called "Save More Tomorrow" to encourage workers who want to save but, for different reasons, such as lack of willpower, knowledge, or procrastination, do not participate on a saving plan. The rationale of the programme is that employees committed themselves in advance to allocate an incremental portion of their contribution rates according to their wage increase. The Save More Tomorrow program, which was introduced for the first time in 1998, starts by approaching employees through an investment consultant who explained and presented the program, as well as facilitating their inscription by proving the needed papers at the moment of the explanation and estimation of the saving rates. The rate of employees subscribing to the retirement savings plan was around an 80% (Thaler and Sunstein, 2008), and those ones tripleted their saving rates in 28 months (Thaler and Benartzi, 2004). The main advantage of this programme is that the employees' spending money is not reduced. Since every time there is an increase in the salary, the savings automatically increase by that proportion; thus synchronising increases in salary with savings. Contribution to the plan continues up to a maximum, and employees can opt out of the plan whenever they wish.

5.2. SOCIAL NUDGES

Nudging can also be applied to a social perspective to obtain improvements on individuals' wellbeing and social customs, this type of nudges is called "social nudges".

Social nudges aim to benefit the society at large, by encouraging individuals to decide that from their individualistic perspective may be perceived as sub-optimal, but which is better for all citizens, such as motivating voluntary provision of goods (Nagatsu, 2015).

5.2.1. Social nudges as social norm engineering

The social pressure can act as a nudge. One example is the social advertisement campaign from the Texas authorities against littering on the roads (Thaler and Sunstein, 2008). The advertisement campaign consisted in a creative and eye-catching slogan “that will also appeal to the particular spirit of Texan pride” (Thaler and Sunstein, 2008, p.78). In addition, the sign displayed in Figure 1. “Don’t mess with Texas!” was promoted through t-shirts, mug cups, and a TV advertisement. The success of this campaign was due to the increased perception of the social norm of not littering, which led to increased expectation of Texas citizens to comply with the social norm (Nagatsu, 2015). “The social campaign reduced the number of wastes dumped on the road by 29% in the first year, and by 72% in the following six years” (Thaler and Sunstein, 2008 p. 79).

Figure 1. “Don’t mess with Texas!” Logo.



Source: [Freebie supply](#) Consulted on 16/06/2023

5.2.2 Social nudges as a Commitment Contract

Two teachers from Yale University, Dean Karlan and Ian Ayres, created *Sticck.com* (Thaler and Sunstein, 2008). The platform prompts individuals to compromise and achieve their personal objectives and aspirations through a financial and a non-financial compromise. The financial compromise consists of paying in advance a certain quantity of money, and if the person achieves the objective at the stipulated time, they get their money back. However, in the case of not fulfilling the objective, that money is donated to charity.

The non-financial compromises consist of messages, alerts, and a monitoring of the objective by the group. Being part of the Stickk community provides ongoing feedback to encourage individuals to meet their goals, such as losing weight, quitting smoking, improving academic grades, saving money, etc. As a result, this whole business act as a nudge in form of incentives and feedback.

5.2.3 Social nudge as consciousness-raising

Social nudges aim to ameliorate the citizens well-being, for that reason, it is important to create awareness and inform citizens about social problems through solidarity campaigns. One example is the annual race organized by the Spanish Association Against Cancer which aims to raise awareness and sensitise people about the importance of cancers' investigation. To this end, the association is responsible for organising and publicising the race through social media and numerous signs or posters all over the cities (Figure 2), which encourage the population to participate in the race. The aim is to raise awareness and sensitize the population about cancer, to accompany those affected and to finance research projects that allows a better diagnosis and treatment for patients. Therefore, the organisation and its dissemination of the race through messages and sings in the streets of the cities and social media, works as a nudge for citizens to participate and show solidarity with the cause.

Figure 2. "On the march against cancer", Information poster for the race against cancer in Madrid, 2023.



Source: [X CARRERA MADRID CONTRA EL CÁNCER | 2023 | Madrid Madrid \(contraelcancer.es\)](https://www.contraelcancer.es/) Consulted on 18/06/2023

5.2.4. Social nudges in e-commerce

Nowadays, making use of the internet to purchase products and services has become an extended habit. As a result, choice architects have begun to intervene in the ecommerce environment, mainly through default options, for example when accepting or rejecting cookies or travel insurance as shown in the images of Figures 3 and 4.

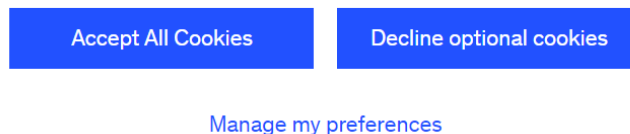
Figure 3. Default option of the travel insurance.



Source: Alsa Consulted on 15/06/2023.

Figure 4. Default option of cookies in Mc Kinsey & Company web page: Much anew about “nudging”.

We use cookies to give you the best possible experience with mckinsey.com. Some are essential for this site to function; others help us understand how you use the site, so we can improve it. We may also use cookies for targeting purposes. Click “Accept all cookies” to proceed as specified, “Decline optional cookies” to accept only essential cookies, or click “Manage my preferences” to choose what cookie types you will accept. [Cookie policy](#)



Source: [Much anew about 'nudging' | McKinsey](#) Consulted on 15/06/2023

The first example, Figure 3, uses a default option where travellers should take the active action of unchecking the insurance option if they do not want to have it, as the insurance is the default option. Therefore, this default option influences individuals to obtain travel insurance, if they do not wish to do so, they must take action to change the pre-selected action by actively unchecking the box. On the other hand, in the case of cookies in Figure 4, which are a very useful tool for companies when it comes to knowing the traffic on their website, cookies are divided into those that are necessary or obligatory to accept, and those that are optional and can be rejected. However, rejecting cookies requires an active action from the individual, as they must uncheck all the options they do not want to accept, or check "Reject" in each one of the options. By defaulting all the boxes ticked, it works as a nudge so that the individual only has to "Accept all", thus avoiding the tedious process of rejecting all the non-mandatory ones.

5.3. HEALTH NUDGES

One of the main areas where nudging can be applied is on individuals' health, its use can be oriented to reduce the consumption of unhealthy food, tobacco, or to prevent from unhealthy habits.

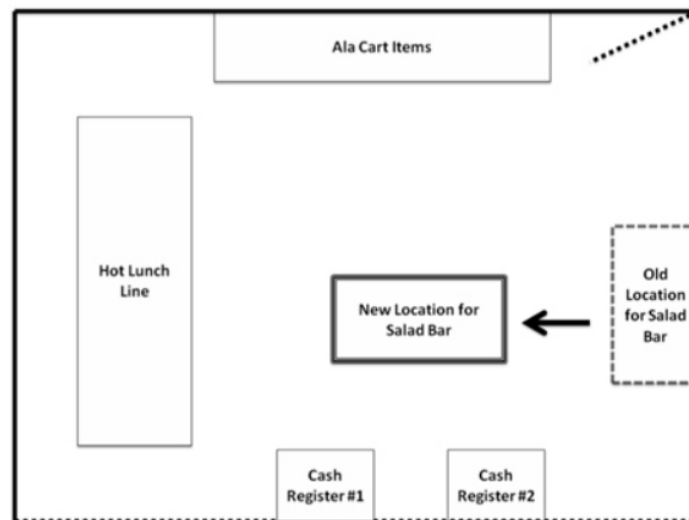
5.3.1 Health nudge to improve the meal selection

The rise of obesity rate among the population, but especially among children has become a school's problem. Due to blaming schools for this situation has become common, as some parents and activists accuse the lunch program of the high level of calories in the menus (Just and Wansink, 2009). For schools can be extremely expensive if they start introducing ultra-nutritious products in their lunchrooms, this increase in the expense would require reducing costs from other school areas (Just and Wansink, 2009), which can create an issue of interests. For that reason, some schools have begun to introduce nudges to develop healthier food habits in children to improve child's health. Among the changes that can be made, we can find the rearrangement of healthier products, making them more available.

One of these rearrangements occurred in a Minnesota school in a study of David Just and Brian Wansink (2009), in which they found that students tend to make impulsive purchases in the cash register line where multiple snacks, chips, and desserts are located. The study changed and replaced those unhealthy products for fruits, the results obtained from this minimal change were highly positive. Because the number of snack sales decreased, and for the school did not require any cost as it only supposed a change in the location of fruits and snacks.

Another example was the study carried out by the same authors in a school in New York, whose objective was to increase the student's consumption of healthy food. The authors noticed that the location of the salad bar was not convenience for students as it requires students to walk specifically to it and the go to the end of queue to wait for the cash register. However, by rotating the salad bar to the middle of the lunchroom, the sales of salad bar have grown steadily since their change of location, as it is shown in Figure 5.

Figure 5. The new location of the salad bar.



Source: (Just and Wansink, 2009 p.3).

These two examples are ways of increasing students' consumption of healthy foods, simply by increasing the convenience and ease with which they can access them. This rearrangement of food has increased the consumption of healthier foods, such as fruit or salads, at no point have student been forced to consume these foods, however, their new placement allows for improved access to them, at a relatively cheap cost.

5.3.2 Health nudge: Nutri-Score

One the main problems in today's societies is the shortage of nutrients in diets, which results in one of the main causes of death globally (Agencia Española de Seguridad Alimentaria y Nutrición (AESAN), 2023). In Spain, this deficiency is caused by excessive consumption of saturated fats, sugars, and salts that cause diseases such as obesity, specifically, the number of people suffering from obesity is extremely worrying, around 16% of Spaniards over the age of 18 face the disease (Ministerio de Sanidad, 2023), and a 37'6% overweight by 2020 (Agencia Española de Seguridad Alimentaria y Nutrición (AESAN), 2023). In response to this global, social and health issue, European governments decided to act in 2016, by implementing a mandatory label with the nutritional information of food products; however, this label did not have much impact on citizens as the information can be difficult to understand and to read, making it hard to know which products are healthier and which are not (Agencia Española de Seguridad Alimentaria y Nutrición (AESAN), 2023). In response to this, a further voluntary label was introduced in the same regulation, called the Front of Pack Labelling (FOPL), whose aim is to facilitate consumers to understand the nutritional information of each product.

Among these labelling model highlights the Nutri-Score label, which acts as a nutritional traffic light, classifying in five different categories from A to E, and from green to red, according to whether they are healthier (dark green, and “A”), or less healthy (red, and with an “E”). The lab classifies products giving its amount of sugar, salt, saturated fat, and calories; this classification allows a quick and easy comparison between similar products. Therefore, by placing the label on the food products allows to quickly identify healthier products, or at least provide information that the products to be consumed are not the healthiest for their wellbeing. As a result, consumers will be influenced to choose the healthier products, as they will know they are better for their health, even if they prefer less healthy products. Through Nutri-Score, consumers gain awareness of which products are the most beneficial for their health, being nudged to obtain the healthiest ones but without restricting or penalising the consumption of products classified as nutritionally poor.

Figure 6. Nutri-Score logo. Information about the Nutri-Score model



Source: La Agencia Española de Seguridad Alimentaria y Nutrición (AESAN): [Aesan - Agencia Española de Seguridad Alimentaria y Nutrición](https://www.aesan.mscd.gob.es/) Consulted on 15/06/2023

5.3.3. Health nudge: Hand hygiene compliance

One of the simplest ways to curb and prevent the transmission of diseases related to hospital care is hand hygiene, as it is considered a key strategy to stop one of the main adverse events during the hospital stay (Hansen et al., 2021). A study carried out in a hospital in Denmark by Hansen et al., (2021) demonstrated that by small contextual adjustments of alcohol-based hand sanitizer (AHS), one of the most favourable ways to prevent hospital-care-associated infections (HCAIs), the hand hygiene practices both visitors and patients were improved. The experiment carried out in the hospital consisted of nudging visitors and patients to use the hand sanitizer displays located in the hospital through different forms of salience, placement, and reinforcement about its existence, through posters with messages emphasising the need for hand disinfection to protect their health and that of their relatives. The study resulted in an increase in the use of hand sanitizers from 0.4% to 19.7% in pre-COVID times, and a 47.6% one year into COVID pandemic.

Among the different ways and options of encouraging hospital visitors and patients to use hand sanitiser, the one that had the greatest impact was the one that combined the use of placement, salience and assertion. More concretely, this option placed AHS in front of the entry doors, with a pink sign attached to it to increase its visibility and saliency; and to assess individuals the necessity of using hand sanitizers a pink line of duct tape was laid down in front of the door, through this signals visitors were influenced to comply with the “rule” of disinfecting their hands before crossing the pink line, in harmony with the sign that salience the AHS.

This study demonstrated with non-invasive and cheap measurements the behaviour of visitors in the hospitals can be changed and influenced to increase the use of hand hygiene compliances.

5.4 GREEN NUDGES

Human behaviour is one of the determining causes of the state of the environment and is responsible for many of today’s environmental problems (Byerly et al., 2018). The environmental policies that introduce behavioural economics aspects, which aim to encourage individuals to act voluntarily in a more environmentally friendly and responsible manner for the environment protection, are called “Green nudges” (Schubert, 2017).

5.4.1. Green nudges: Environmental preservation in hotels

Do you know how many towels are washed per day in hotels? Could you imagine the amount of energy and water it takes to wash all the towels in the hotel every day? Similar questions were posed to hotel guests in an experiment carried out by Goldstein et al. (2008) whose aim was to analyse the impact of signs encouraging hotel guests to participate in an environmental conservation program. The environmental impact of hotels is enormous and undoubtedly, for that matter, hotels start adopting environmental programs with the aim of saving energy, helping to conserve the environment, and reducing the amount of detergent, water, oil, and waste generated by the laundering. One of the methods that hotels have found to reduce towel laundering is through various messages and signs that appeal to the environmental awareness of guests by reusing towels. Hotels start implementing messages in the washrooms with information of the program as descriptive norms, it is to say, placing signs with messages informing about that most of the guest participate in the towel reuse program, as it’s shown in Figure 6. Hotels were able to reduce the daily washing of towels by simply letting visitors know what the usual and effective behaviour among other guest is to reuse its towels. These messages were a descriptive norm but functioned as a social norm, however without any consequences or penalties as it was not an injunctive or explicit norm.

Two different messages were printed on signs located on the washroom towel racks, both messages encourage guests to participate in the towel reuse program; the signs also include the instructions to follow the program, and the benefits of participating in the program. The results obtained in the study were that hotel guests are more likely to reuse the towels when they know that most other participate in the environmental conservation program, demonstrating that the use of descriptive norms as a tool to motivate individuals to behave in a particular way.

Figure 6. Example of towel reuse sign.



Source: (Goldstein, et al., 2008 p.474)

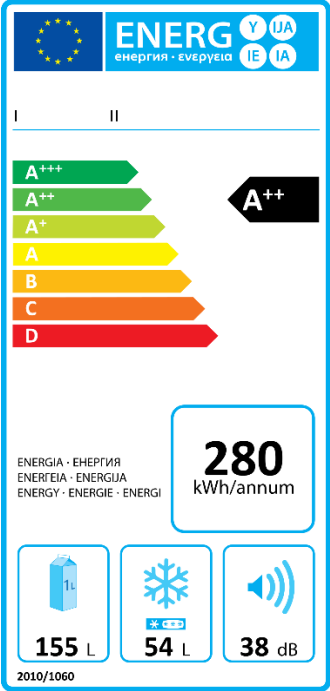
5.4.2. Green nudges: Eco-labelling

Eco-labels are type of environmental certification that informs consumers about product characteristics considered essential to act in an environmental responsible behaviour (Schubert, 2017). They are an essential instrument to provide information about the environmental impact of the product, and to increase the saliency of the products aiming to create awareness among consumers. In addition, eco-labels can be used to provide a certain social value to those products that meet certain characteristics related to the preservation and care of the environment, at least in context where a pro-environmental behaviour is approved by society.

As a result, eco-labels can work as nudges, since by rising awareness and salience consumer behaviour can be influenced or motivated to more environmentally friendly choices (Schubert, 2017).

A common eco-label is the one designed by the European Union for electrical appliances, the label rates in terms of energy efficiency refrigerators, dishwashers, bulbs, or washing machines, rating on seven-points coloured in scale, from more energy efficient “A +++”, in green, to less efficient “D” in red, as it’s shown in Figure 7. This eco-label worked as an energy efficiency reference, making consumers more aware of the unnecessary waste that such electrical appliance can make, as it is not as efficient in terms of energy use.

Figure 7. Energy eco-label.



Source: wernerantweiler.ca Consulted on 15/06/2023

5.4.3. Green nudges: Social competition

Green nudges can generate a status competition through social comparisons between different groups, to encourage pro-environmental behaviours (Schubert, 2017). First, to get consumers to act in accordance with values of environmental protection and conservation, it is possible to link this pro-environmental behaviour to a certain social status or a positive image of the individual. In other words, if consumers benefit from an expressive utility, meaning that these pro-environmental actions allow them to express their values and social identity, it is possible to encourage them to behave in a more environmentally friendly manner (Schubert, 2017). Green nudges may take the form of a competition for social status. For this purpose, individuals are encouraged to act on a pro-environmental behaviour and to signal to others. As a result, the individuals are encouraging others to act more environmentally conscious and stimulating the social status through the competition.

For example, a company called Opower and its partnering energy provider, decided to provide households with a report called the *Home Energy Report* (HER), in which they present and inform households about their energy consumption, as well as their neighbours' consumption. When households become aware of their neighbours' expenditure in energy, they began to try to waste less energy, since the report seemed to be an unwritten rule, and because spending less energy than the neighbours generated a positive self-image among them (Schubert, 2017).

5.4.4. Green and social nudge

The city council of Valladolid in Spain started a campaign in which many of their paper and carboards containers have been placed with an image with a very clear objective: encouraging citizens to fold and deposit the carboards in the containers. The image shows a pile of accumulated cartons, giving the feeling of annoyance both for walkers and for rubbish collector themselves with the following message: "We do not deserve to see this image again". In Figure 8, on the right, an image of the containers where it can be sensed that the cartons have been deposited in the container, with a message that says: "Always fold the cardboard inside the container". Consequently, the council is motivating and encouraging citizens to dispose of their waste correctly, by simply using an image and a clear message.

Figure 8. The images pasted on the containers in the city of Valladolid.



Source: own source

6. NUDGING CRITICISM

Since the publication of Richard Thaler's and Cass Sunstein's book, the nudge policies have gained a large number of both big enthusiasts and big detractors of this discipline. As a result of such divergent of opinions, there has been considerable debate about the ethics and effectiveness of nudges as a means of changing individuals' behaviour, among which it can be found the following critics.

6.1. LIBERTARIAN PATERNALISM CRITICISM

Thaler and Sunstein argue that paternalism is unavoidable, as individuals' decisions can be incoherent or inferior and because there is always someone (the choice architect) who organises the context in which decisions are taken. In addition, the authors add the "libertarian" aspect by insisting on the freedom of individuals to choose their own decisions, since libertarian paternalism does not restrict the freedom of individuals. Nevertheless, this argument does not convince everyone, as the concept of libertarian paternalism has been criticised in several ways. Firstly, libertarian paternalism appeals to an anti-market sensibility, since libertarian paternalism does not trust the mechanisms of the economic system. The market does not seem to be a place where personal preferences can be satisfied, just as it does not believe that individual choices can lead to beneficial actions for those who make them (Sugden, 2009).

Secondly, libertarian paternalism makes individuals recognise their imperfections and irrationality in their decision making, so they must allow themselves to be pushed where expert judgement demands. As Sugden explains, "irrational customer does not have true preferences in the first place, and so cannot complain that his preferences have not been respected" (Sugden, 2008, p. 235). As a consequence, authors make their audience to imagine that the interventions of libertarian paternalism coincide with their individual opinions, this idea has resonated with its audience because nudges are generally presented from the perspective of those who make the decisions, rather than those who are being nudged. (Sugden, 2009).

6.2. NUDGING AND LONG-TERM SUSTAINABILITY

The use of nudges aims to make people's lives longer, healthier, and better (Sugden, 2009). However, nudging cannot sustain behavioural changes in the long-term, as they do not change the individuals' values, attitudes, knowledge, or willingness that can impact in the decision-making processes.

Nudges can be useful and will work on automatic or unintentional behaviours during a short time, but when individual's attitudes or values change, the nudge would not sustain anymore. In other words, "nudging people in one direction leaves them vulnerable to being nudged back again" (Goodwin, 2012, p. 90). For example, the problem of obesity cannot be eliminated with nudges, as it would only make short-term behavioural changes like informing or adjusting their lifestyle to a healthier one temporally. In addition, the obesity problem is not caused only by irrationality, as our society encourages eating unhealthily (Alberto and Salazar, 2012). Therefore, the nudge may change individual's behaviour for a while, but not in the long term, since it is unable to change the whole society (Goodwin, 2012).

6.3. NUDGES ARE MANIPULATIVE AND NOT TRANSPARENT

The use of nudges aims to change and influence on individuals' behaviour, this had led many authors to question whether this intervention in decision-making is unethical and manipulative. Nudging claims that individuals have the possibility to opt out, given that individuals do not have to change their behaviour if they do not want to, allowing them to act in complete freedom since they are not restricted. Nevertheless, nudges can be considered manipulative since they aim to influence the people's behaviour in a desired way, without agreeing or explicit consent from the individuals being nudged. Because the manipulative character of the nudges can even occur in the intention to improve the situation of the individuals (Wilkinson, 2012). For that reason, how individuals can know the opt out option if they are not informed or given a choice? This interference in individual's decisions-making and diminish their availability to make their own choices, causes that nudges are being considered manipulative (Medina, 2021) since when individuals are not aware that they are being influenced by the nudges, nudging works better (Goodwin, 2012).

In addition, the nudges are criticized for not being completely transparent, as it is unknown how choice architects detect and get to know the tastes, and needs of individuals, in order to guide them to better choices; or what specific criteria is followed to judge what are the inferior choices made by individuals (Sugden, 2009).

6.4. THE RATIONAL OBJECTION

The nudge discipline assumes that individuals do not always make rational choices and, for that reason, nudging states that certain guidance in individuals' choices is needed. The rationality objection is the term used to express the complaints on nudge for compromising people's autonomy through non-rational mechanisms, taking advantage of the irrationality of human judgment.

Consequently, nudges take advantage of individuals' irrationality, compromising and diminishing individuals' autonomy in the decision-making process, undermining rationality on its decision-making capacity (Hausman and Welch, 2010). Furthermore, critics of nudge claim that the use of nudges does not allow individuals to make mistakes, and thus, to learn, taking away their decision-making autonomy (Thaler and Sunstein, 2008).

6.5. DUBIOUS INTENTIONS

Choice architects, as human beings, may have their own interests and they may act according to their own necessities rather than towards the collective benefit or welfare (Thaler and Sunstein, 2008). Therefore, the neutrality of nudges is therefore criticised, as they seek to obtain a specific interest and steer individuals towards that end, which may be influenced by the need of choice architects to obtain benefits through any means (Sugden, 2008).

Nudging theory meets with the critical eye of sceptics, and their criticisms mainly revolve around the lack of autonomy in decision-making, and whether the changes induced by choice architects are the right and beneficial for the "nudged" individuals.

7. CONCLUSIONS

In conclusion, after analysing the theory of nudging, as well as its application in marketing, health, society, environment, and financial policies, we can say that nudging is multidisciplinary technique.

The theory of nudging is based on three main pillars. Firstly, humans make mistakes systematically, so that their decisions can be predicted and influenced to a specific behaviour. Secondly, the fact that individuals are continuously making decision constitutes the architecture of decision and its influence on certain behaviours unavoidable. In other words, the architecture of decisions is inevitable, since there is always someone in charge of organising the context where decisions are made (Thaler and Sunstein, 2008). Lastly, libertarian paternalism encompasses all aspects of nudging, and decision architects trying to direct the choices of individuals towards those that will provide them with the best welfare, health, and well-being.

Therefore, the use of nudges is focused on improving and facilitating the decision making of individuals, with the aim of making the most convenient decision for health, wealth, and happiness of individuals, while preserving their freedom to choose their own decisions.

Furthermore, the key to nudges is their maintenance of individual's freedom of choice, being a relevant technique to facilitate and simplifying the decision-making process, both in the case of difficult and also for simple decisions, from a food choice to joining a retirement program.

However, this discipline does not please everyone. It has been criticised for the lack of transparency of choice architects, as individuals are not alerted about the implementation of nudges, which are affecting their freedom of decision. What is more, the influence that decision architects exert can be seen as manipulation. However, Thaler and Sunstein counter this criticism with the fact that as individuals living in society, actions are not individualised so that the actions taken are influenced by the context in which they are found and taken. The difficulty of knowing whether nudges would benefit individuals, as well as their lack of long-term results, increase the number of sceptics. Nevertheless, despite the criticisms, its implementation has not been slowed down.

Nudges as it has been shown are able to modify individuals' behaviour towards healthier, more responsible, and more conscious choices, at least in the short term. These benefits have been observed in the marketing sector, where nudges take the form of messages, posters, or information provision, designed to increase or to reduce the consumption of certain goods or services. Furthermore, nudges, together with tools such as marketing mix, allow choice architects and managers to identify which characteristics of goods and services can ensure that the best or preferred decisions are taken. Therefore, the discipline of nudging can generate great benefits if decision architects do not put their own interests before those of individuals. Due to nudges have the potential to be a great tool for public policy, as nudging is a simpler and cheaper technique in comparison to other policies or rules. In addition to the fact that it can be embraced in a more natural and optimistic way that leads to behavioural change.

This paper exposes the discipline of nudging, from its influences to its exemplifications. It shows the functioning of nudges as a tool to influence the behaviour of individuals, and to improve the process of decision-making. Furthermore, a connexion between the use of nudges and the marketing discipline has been elaborated, showing how both seek to influence the decisions of consumers despite belonging to different economic disciplines. Nudges are a subtle but also very useful tool. Nudges can be found in numerous places and objects, from a milk carton, a billboard sign, to a simple gel dispenser. The effectiveness and the potential of this tool can be very beneficial to everyone's behaviour and decisions, even though it seems impossible to escape from their influence. Now that we know their characteristics, it will be easier to identify when we are faced with a nudge or a simple sign, or a regulatory policy.

7.1. PROPOSTIONS AND IMPROVEMENTS

Hereafter, there would be proposed some nudging interventions thought of by the author herself, which have not been implemented, but which could improve and beneficiate the situation of individuals.

Firstly, following the same reasoning of using unpleasant images or real data on the mortifying consequences of tobacco on people, the same could be done on alcoholic beverages. The placement of labels with awareness-raising messages that warn about the great health consequences of alcohol on people, can serve as a nudge to reduce their consumption, especially of those alcoholic beverages that are high in alcohol content.

Furthermore, other option related to the protection and preservation of the environment may be informing consumers through labels about the degradation time of certain plastics, or the use that can be made of that plastic if it is recycled. This nudge would inform and make consumers aware of the use that can be made of the packaging, such as a plastic bottle, or the environmental consequences of not recycling the same plastic bottle. In this way, consumers will be encouraged to recycle plastic packings by throwing them in the yellow bin.

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