



# **The impact of COVID-19 on hedonic and utilitarian decision-making**

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## **Abstract**

A Chinese virus has managed to bring the whole world to a standstill. This circumstance has forced people to adapt their usual lifestyle. COVID-19 has brought changes in different areas of life, including consumer behavior. For many, the pandemic was a reminder of what is important and needed in life: security, trust and health instead of excessive spending on items that focus on delivering solely satisfaction. The current situation results in even more emotions that are involved during the process of decision-making, leading to it becoming increasingly complex and harder to prepare for. With the presence of the virus, people experience emotions that steer their buying attention increasingly towards utilitarian products. With purchasing hedonic items on the other hand, comes along the risk for justification to oneself or to others. Additionally, the reminder of the virus leads to less expected satisfaction from hedonic products, proving that the negative emotions resulting from said reminder overshadow the outcome. The categorization of several utilitarian and hedonic attributes and products has proven to be influenced by the manipulation, indicating great relevance for the industry. From a marketing perspective, it is crucial to understand these changes and prepare for them accordingly. Strategies regarding the marketing mix, a clear positioning of products and an understanding of the process a customer goes through prior, during and post a purchasing decision are significant, especially in unpredictable times like these.

**Keywords:** COVID-19, Pandemic, Consumer Behavior, Utilitarian, Hedonic, Satisfaction, Choice, Decision-Making, Justification

**Título:** O impacto da COVID-19 na tomada de decisões hedonistas e utilitárias

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## **Resumo**

Um vírus chinês conseguiu paralisar o mundo inteiro. Esta circunstância forçou as pessoas a adaptarem o seu estilo de vida. A COVID-19 trouxe mudanças em diferentes áreas da vida, incluindo o comportamento dos consumidores. Para muitos, a pandemia foi um alerta do que é importante e necessário na vida: segurança, confiança e saúde, em vez de gastos excessivos em produtos que se concentram em proporcionar apenas satisfação. A situação atual resulta em ainda mais emoções que estão envolvidas durante o processo de tomada de decisões, levando a que se torne cada vez mais complexo e mais difícil de preparar. Com a presença do vírus, as pessoas experimentam emoções que orientam cada vez mais a sua atenção de compra para produtos utilitários. Por outro lado, com a compra de artigos hedônicos, surge o risco de justificação para si próprio ou para os outros. Além disso, a recordação do vírus leva a uma satisfação menos esperada dos produtos hedônicos, provando que as emoções negativas resultantes do referido alerta ofuscam o resultado. A categorização de uma série de atributos e produtos utilitários e hedônicos provou ser influenciada pela manipulação, indicando grande relevância para a indústria. De uma perspectiva de marketing, é crucial compreender estas mudanças e preparar-se para elas em conformidade. As estratégias em relação ao marketing mix, um posicionamento claro dos produtos e uma compreensão do processo pelo qual um cliente passa antes, durante e após uma decisão de compra são significativas, especialmente em tempos imprevisíveis como estes.

**Palavras-chave:** COVID-19, Pandemia, Comportamento do Consumidor, Utilitário, Hedônico, Satisfação, Escolha, Tomada de Decisão, Justificação

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# 1 Introduction

## 1.1 Relevance of the topic

Predicting consumer behavior has never been an easy task. Many decisions are based on consumers' feelings when purchasing an item as well as past behavior (Sheth and Kellstadt, 2020). Feeling many emotions during a purchase does not necessarily mean that the decision was a thorough one. There are situations in which feelings lead to automatic and reflexive processes that are not deliberately intended. Other times, these emotions present a personal struggle as they are conflicting, leading to confusion and overburdening. Positive (e.g., joy) and negative (e.g. fear) emotions can occur simultaneously (Larsen et al., 2001). Consumers finally integrate these multiple emotions of different valence within the framework of a mental process to form a holistic emotional reaction, which can form the basis of the evaluation. In this case, ambivalence and contradictory responses lead to more engagement and a more reflective decision-making process. Two buzzwords that are used within the greater area of consumer behavior are utilitarian and hedonic. Products can have utilitarian and hedonic attributes; decisions can be based on the two terms and the emotional involvement varies within both concepts. According to Sheth (2020), natural disasters can be one of the causes people undergo change in their purchase behavior. With a worldwide pandemic we are facing now, all known mechanisms and techniques used to predict these behaviors are being challenged.

We can assume that lifestyle and habits of many have changed during the pandemic by looking at a few specific areas. Social distancing, a change in the way we consume as many businesses and shops were closed, and the constant fear of the virus resulted in a modification of consumer behavior (Loxton et al., 2020). Consumer behavior itself was affected, as were common habits, values, and future perspectives (Gupta et al., 2020). Based on previous literature, the author proposes the following research question:

**RQ1:** To what extent has the pandemic outbreak influenced the evaluation of hedonic and utilitarian purchasing decisions?

## **1.2 Aim and structure of the thesis**

The goal of this study is to provide insights into a rather unexplored topic that affects all areas of life. From a marketing perspective, the study serves as a manual to understand consumers and take appropriate action. Understanding the decision-making process and the impact COVID-19 has had and continues to have on this process can be of great benefit in designing and adapting the marketing mix. This paper is preceded by a thorough literature review from which hypotheses are derived. Then, the data collection procedure is explained, and the results are analyzed and evaluated. Finally, a conclusion and discussion of the topic follows.

## **2 Literature review**

The use of secondary data provides a common ground and lays the groundwork for the experimental research that follows. For the literature review, a range of online journals, books and websites were used to collect as many insights and points of view as possible.

### **2.1 The consumer decision-making-process**

When it comes to predicting consumer behavior and preparing sales forecasts, marketers are often at a loss, or they do not understand the severity of it. It is dependent on timing, location, circumstances as well as product categories and personal influences. Decisions can be made alone or in company of others, for oneself or somebody else. All of this makes it difficult for marketers to supply customers with what they need, want and desire. All, while being as cost-efficient as possible (Gourville and Norton, 2014).

Emotions are relevant during the consumer decision-making process. They are complex and defined differently by each and everyone. Many sources agree on the fact that emotions can be activated by physiological stimuli, for example excitement (Frijda, 1986). When an external stimulus triggers the Central Nervous System, it decides how the body reacts and what action will follow. On top of that, a lot of research shows that an emotional reaction is based on what an individual defines as significant stimuli for him or herself. Emotions are therefore generated through an impulse or an event that are advantageous for personal motives, objectives or needs (Lazarus, 1991). The triggering object can be anything from a person, a situation or a product. In this paper, the focus will be on the latter. Oftentimes, the goal is to change the status quo and aim towards a positive change of emotions and well-being (Frijda, 1988). Additionally, emotions comprise explicit motivation for action. Like an urge, motivations increase the

willingness to engage in an activity – in this paper the activity of purchasing something (Frijda, 1986).

## **2.2 The concept of hedonism and utilitarianism**

The following chapter will lay the groundwork for the further course of the paper. The two concepts of hedonism and utilitarianism can be found in various areas of life but in this context, they will be used to explain decision-making processes in regard to different product categories.

Initial theories assume that people make buying decisions based on logic and reason – this is often referred to as “information processing model” (Bettman, 1979). However, in most recent years, the impact of feelings, excitement, personal attributes became more and more relevant when analyzing consumption and all that it involves (Hirschman and Holbrook, 1982).

It is rather difficult to find identical definitions for the term hedonism. Evidently, the concept is not easy to grasp and formulated as it varies depending on the individual. According to the Duden dictionary, hedonism is defined as “the philosophical doctrine founded in the antiquity, according to which the highest ethical principle is the pursuit of sensual pleasure and enjoyment, and private happiness is seen in the lasting fulfillment of individual physical and psychological pleasure”<sup>1</sup> (Duden, 2019). Hirschman and Holbrook (1982) use the following phrase for definition: “Hedonic consumption includes those facets of consumer behavior that relate to the multisensory, fantasy and emotive aspects of product usage experience”. Choosing among alternatives and ways to stand out and differentiate a product from another can be done by their hedonic value and their impact on the customer (Schmitt, 1999). Utilitarianism on the other hand is associated with usefulness and pragmatism. But a false focus on rationally convincing attributes, can lead to a rapid flattening of initial enthusiasm, so that the need for a replacement arises after only a short time. The next new thrill is needed - the true potential of experience-related product qualities has not been exploited (Diefenbach and Hassenzahl, 2017).

According to Lu, Liu and Fang (2016), examples for hedonic products are comedic movies, a stereo sound system, sweets or an iPad for entertainment. Utilitarian products can be a documentary, a printer, fruit, or a laptop for work.

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<sup>1</sup> Translated by the author

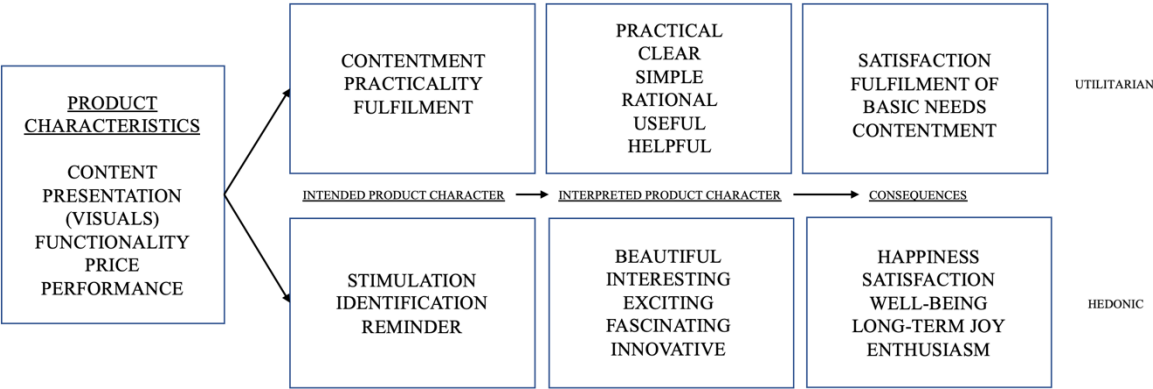


Typical utilitarian attributes are practical, simple, clear, rational. The hedonic quality of a product is typically described by attributes such as: beautiful, interesting, exciting, fascinating, or innovative. Utilitarian attributes are often associated with objective or performance parameters (e.g., cleaning performance of a dishwasher), whereas hedonic attributes are more related to soft aspects such as visual design. Statements by consumers on hedonic quality are thus more dependent on psychological mechanisms and individual reflection and are altogether more complex, more difficult to grasp and more difficult to evaluate (Hsee et al., 2009). Many of the products researched in consumer psychology have per se a proximity to one of the two dimensions, such as kitchenware or a toothbrush (primarily utilitarian), or chocolate or high heels (primarily hedonic) (Diefenbach and Hassenzahl, 2017). If a product exceeds the consumer's expectations in terms of utilitarian quality, this leads only to quiet satisfaction, while exceeding expectations in terms of hedonic quality leads to joy and enthusiasm (Chitturi et al., 2008). A car purchase, for example, may describe the dilemma a bit more concretely and gives a more comprehensive understanding of the two concepts. Experts have long attested to the experiential value of the car and emphasize that buying a car is by no means a rational process. Consumers are looking for experiences and additional emotional benefits and do not choose a brand because of its functional properties, but because of the experiences and feelings it conveys (e.g., Esch, 2013). Nevertheless, consumers' self-statements often look different. For example, in a survey of 1,500 car buyers conducted by Deloitte (2014), rational considerations were emphasized above all; functionalities followed directly after price in the ranking of the most important purchasing criteria - visual aesthetics (design, color of the vehicle) came last. There are various reasons for the neglect of a hedonic experience and the focus of utilitarian and more functional characteristics in product selection:

- 1) Distorted focus: customers are overwhelmed with the choice (hyper choice) and don't have enough information about the potential long-term benefits, so they base their choice on functions and hard facts (quantifiable and objective) and ignore emotional advantages (soft, subjective) (Hsee et al. 2003, 2009)
- 2) Lack of tangibility: the product does not convey its' unique selling proposition (USP) at the point of sale (POS)
- 3) Lack of justifiability: the customer fears to give into his emotions and is scared of judgement from others (Diefenbach and Hassenzahl, 2017)

It is relevant to mention that previous literature does not share a coherent point of view concerning the differentiation between hedonism and utilitarianism. While some believe that the two terms cannot be seen as two extremes of a scale, others are of the opinion that the hedonic and utilitarian product characteristics can differ in their intensity from product to product (Schmiedt, 2009). However, different emotional reactions are associated with the two dimensions: while a hedonistic product focuses on enthusiasm and the feeling of happiness, a utilitarian product focuses on the feeling of insurance and faith. (Chitturi et al., 2007). In this context, Bazeman, Tenbrunsel and Wade-Bezoni (1998) introduced the synonyms “wants” and “shoulds” where the former is allocated to hedonism and the latter to utilitarianism. Both utilitarian as well as hedonic products result in rewards, various sources agree.

Based on Hassenzahl’s (2003) model of hedonic-pragmatic user experience, the following framework was designed.



**Figure 1: The hedonic - utilitarian decision-making**

While Hassenzahl (2003) includes two perspectives (one of the creator and one of the user), the author in this case focused solely on the latter due to relevance. The product characteristics can be summed up by their content, their visual presentation (e.g., packaging), their functionality, their price and their performance intention. Marketers can make use of these design elements to create a certain product character. The author added a second phase, called the intended product character. Often, consumers already enter a purchase situation with a state of mind or a set of emotions. These can be positive or negative, hence the product searched for or stumbled upon is supposed to fulfil certain needs or wishes such as a practical fulfilment or a wish for identification. When presented with a product the interpretation of it can evoke different

feelings and the product is perceived as practical and useful or exciting and beautiful which in turn leads to either a general and quiet satisfaction or to long-term enthusiasm.

### *Product relationships*

Diefenbach and Hassenzahl (2017) describe a scenario, in which someone was asked to describe their relationship with a laptop. The answer was as follows:

*“In general, beautiful things are important to me and tend to grow on me. If it's a good mix of design and functionality, I think that's very important and good. [...] I think the more mundane things become and the more they are used in everyday life, the more important it is that the design plays along. And it's a device that you also have at university and open up there. It wouldn't bother me if people said something - but that's also a personal feeling. It also has an identity character. It's a real work tool, also in the manual sense [...], but also a loyal companion with all the functions that I can use without it causing me problems. You could say it's a good colleague. Whereby it is also sometimes a love-hate relationship.”*

This description shows the complexity people undergo when evaluating and assessing products and their meaning for oneself. For this person, the laptop is primarily a work tool; performance data and functionality must be suitable. But it is about much more than that: emotions, the product relationship, and the expression of identity also play an important role for him. How do I appear to others, how does the product make me feel, does its character suit me? Soft attributes such as beauty and aesthetics are particularly important here. If the laptop hadn't been visually convincing, it probably wouldn't have grown on him as much, according to his assumption. Experience-related product qualities are rather vague and dependent on the subjective experience of the user. This contrasts to pragmatic product qualities, which can be easily predicted and defined relatively objectively (Diefenbach and Hassenzahl, 2017). Consequently, making hedonic decisions is difficult to predict and dependent on the individual while utilitarian decisions are based on product attributes and characteristics that are more visible and tangible.

### *Selling positivity*

When looking at advertisement, it is evident that companies are selling emotions to put an action in motion – preferably the action to purchase their product instead of another. In TV

advertisements or billboards for example, scenarios not only show products from a functional point of view but also what users can experience from those functions. Instead of concentrating on a completely utilitarian selling technique, companies form an emotional bond with their potential customers to ensure brand loyalty on a long-term basis (Belk, 1988). Below, the author explains in more detail the impact negative and positive emotions have on the purchase behavior.

### *The impact of Emotions*

The emotional reaction represents the consumer's first immediate response to a product and indicates whether it is perceived as good/bad, pleasurable/not pleasurable and so on (Slovic et al., 2002). In this way, each stimulus experiences a distinct positive or negative evaluation (Bargh, 1997). This evaluation is continuous, fast, automatic, and not necessarily conscious. Nevertheless, it guides all subsequent (information processing and evaluation) processes as well as consumer behavior (Frijda, 1986). Accordingly, this mechanism enables consumers to evaluate complex situations or stimuli without delay and decisions can be made based on either a hedonic reaction or a utilitarian one. However, everyday actions and hedonic consumption experiences are usually not exclusively accompanied by a singular emotion, but by multiple, partly mixed emotions (Edell and Burke, 1987). Positive (e.g., joy) and negative (e.g., fear) feelings can occur simultaneously (Larsen et al., 2001). Specially in the context of hedonic decisions and product categories, it is predominantly about emotions and their effect instead of a rational, cognitively determined approach that considers the benefit. (Morris, 1999). Slovic et al. (2002) even claim that “Feelings form a neural and psychological substrate of utility”.

People calculate total hedonic utility as the sum of positive and negative emotions associated with an experience – the so-called hedonic calculation (Konow and Earley, 2008). Accordingly, the best purchase decision is the decision that maximizes the consumer's positive sentiments. (Hsee and Hastie, 2006). However, the subjectively perceived utility of a product varies depending on how this said product is framed. In this sense, the benefit derived from the experience is subject to the usual laws of (selective and distorted) perception of each individual (Kahneman and Varey, 1991).

Although numerous studies demonstrate the general usefulness and scale-mappable separation of hedonic and utilitarian product quality (Batra and Ahtola, 1991; Crowley et al., 1992), real user testimonies make it clear that the hedonic-pragmatic differentiation should not be

understood as a strict dichotomy. A product attribute is not either clearly hedonic or pragmatic. Rather, the hedonic-perspective and the utilitarian-perspective form two different views by which the quality of a product can be judged. From a conceptual, model-theoretical, and design perspective, the hedonic-utilitarian distinction is useful and helpful - but this does not mean that products and users' experiences can always be clearly categorized here.

### **2.3 COVID-19 and its impact on consumption**

In December 2019, the World Health Organization (WHO) first learned from multiple pneumonia cases in Wuhan, China, soon to be known as SARS-Cov-2 (WHO, 2021). Since then, it has spread all over the globe and became a constant part of everybody's lives. Slowly, it has been proven that COVID-19 and the potential risks associated with it can lead to mental and psychological issues which can impact buying behavior (Xiao, 2020).

To elaborate if and how people started purchasing differently during or after the pandemic, the following topics will review situations in which people might consume or act differently when they're faced with specific circumstances. As the topic of COVID-19 is not yet researched thoroughly, the author uses related situations to draw conclusions and assumptions to the status quo. With various countries going back into complete lockdown at the time of writing this thesis, there does not seem to be a return to normality in sight.

#### **2.3.1 Risks, threats, and our way to cope**

Many reactions and behaviors are not done purposely and often happen unconsciously, quickly, and automatically as a reaction to certain situations (Bargh, 1997). Therefore, when asked, people might not even know if they acted in a different way or not. Fact is that unpredictability changes how people consume, hence their decision-making process is being altered (Loxton et al., 2020). In particular, a health crisis such as the pandemic leads to change in behavior (Forbes, 2017). The fact that information is so easily and quickly spread all over the world and people have access from any place and any device accelerates the spread of uncertainty and influences purchasing decisions in every product category (Loxton et al., 2020).

Fear and stress are expected reactions when presented with uncertainties such as a pandemic (Serman & Dogan, 2015). These reactions in a sense manipulate a rational approach to decision-making as they change the circumstances and add several emotions that can impact

the process (Loxton et al., 2020). A shift in everybody's daily lives, ranging from working from home, restricted social contacts to the ever-present concern of catching and contracting the virus has had and still has significant impact on mental health (WHO, 2020). Presented with news, headlines, facts and numbers, death is and was omnipresent. The fact that the media increases a feeling of fear and anxiety with exaggerated headlines only fuels the panic among citizens around the world (Kilgo et al, 2019). Research has shown that, faced with death, people tend to experience negative emotions and feelings. However, a positive view on life and positivity can decrease negativity and increase satisfaction, enthusiasm, and happiness in general (Caprara et. al., 2012).

Other scientists state that the willingness to risk something and to aim for a high-payoff reward increases if one feels pessimistic and stressed. At the same time, the desire to change this state into an optimistic one, leads to choosing an option that results in just that (Leith and Baumeister, 1996). This prompts the assumption that feeling good does not necessarily lead to a specific, underlying action. A bad mood and negativity on the other hand have an impact on actions as a positive outcome is aspired and will enhance the well-being. This also includes downplaying any negative costs associated with this outcome as the mood can only improve and the outlook of potentially changing the current state of mind is far more attractive (Leith and Baumeister, 1996).

One reaction to a crisis, perceived or anticipated, is overreacted and non-rational behavior that often results in buying too many items at once. This is also known as "panic buying" and mostly includes the purchase of necessary or utilitarian items (Besson, 2020). Images of empty shelves in supermarkets where once piles of toilet paper sat went around the world during lockdown periods. In different words, this behavior often results in product shortages and supply difficulties.

Acting this way derives from a fear of limited access or availability, uncertainty, personal behavior, and psychological characteristics and aims at protecting oneself from risk and limitations. Hence, putting oneself first and behaving in a rather selfish matter (Yuen et al., 2020). Without enough information and a lack of knowledge, paired with the inability to change the situation and a feeling of powerlessness, people seek comforting purchases that relieves them off their fear and anxiety (Elmore, 2017).

On top of that, unforeseeable events and catastrophes lead people to concentrate on what is needed to cater to their basic needs, hence utilitarian products (Forbes, 2017). This behavior

was already observed by Maslow, who developed the so-called Hierarchy of Needs in 1943. According to his classification, humankind has five stages of fulfilment starting with physiological needs, followed by safety needs, the need for belonging, esteem and self-actualization. Forbes (2017) has used the pyramid to determine that during chaotic circumstances such as the pandemic, the need to fulfil physiological needs are favored compared to luxurious or more hedonic purchases. This assumption is supported when looking at the luxury sector in more detail. In 2020, the luxury market declined by 20-35% due to lockdown measurements in various countries (Bain & Company, 2020). Black and Cusbert (2012) are also in line with this, saying that “(...) consumer spending on durable luxury goods (...) were considerably more volatile than consumption of non-durable essentials. Past events have proven to have impacted consumer behavior, leading to a preference for necessary items rather than unnecessary ones such as luxury items – hence in accordance with Maslow’s theory. At this point, however, it should be emphasized that Maslow's concept has some gaps, partly because of its topicality. For example, more current scientists have clarified that these levels are not assumptions set in stone, but merely conditions.

Touched upon before, it is interesting to mention the role of media, more precisely looking at the effect it has on consumer behavior. Pieri (2018) has used the example of Ebola in 2014 to draw assumptions to COVID-19. Once the virus was labelled “pandemic” and “outbreak” in the media instead of “regional crisis” consumer behavior changed and became increasingly influenced by panic, fear, and uncertainty. As a result, behaviors such as the ones described earlier became evident. Being reminded of the Corona virus, seeing visuals and headlines may lead to a shift in behavior and results in different reasoning and purchase decisions.

### **2.3.2 Social pressure**

When looking at purchase decisions, people seem to be more motivated to buy hedonic products but only in situations where they don’t have to justify their decisions to themselves or others (Okada, 2005). Therefore, we conclude that the impact of the social environment is important during the decision-making process. Hedonic product attributes represent a potential for a positive user experience, which is desirable from many points of view. At the same time, however, research also shows a certain distrust of hedonic attributes, which has a particular impact at the moment of product choice. The association of hedonic attributes with luxury and decadence (O'Curry and Strahilevitz, 2001) and irrational decision-making (Hsee et al., 2003)

makes their consideration in product choice seem questionable. The need to justify a choice may thus cause a preference for pragmatic attributes: Due to their direct relation to the primary function of a product, they are much easier to justify than hedonic attributes (Hsee et al., 2003). In extreme cases, people consider the justifiability of product attributes rather than their relevance for the enjoyment of the product and choose a more pragmatic/less hedonic product than it corresponds to their preference.

Research suggests that the change people underwent during the pandemic can increase panic purchases and “herd mentality” (Loxton et al., 2020). Copying the behavior applied in the immediate surroundings (from personal network to governments or media in general) is not uncommon and can also result in panic purchases. In times of general high anxiety as it is the case during the pandemic, people can be more adaptive to being influenced by others (Kameda and Hastie, 2015). In this context it is also worth mentioning that behavior shifts to becoming more selfish. Many are inclined to focus on his or her own best outcome. So, while orientating on others decisions and behavior, the desired outcome is focused on a singularity rather than the greater good. Often, people don’t have the ability to evaluate their behavior on an objective scale, so the next best solution is to compare themselves to others, observe their actions and outcomes (Suls & Miller, 1977).

### **2.3.3 Self-regulation**

In this context the concept of self-regulation and failing to constrain from it is worth mentioning. This theory describes part of the human behavior and links psychology, both social and personality, and cognitive psychology. It is often defined as “goal-directed behavior, typically within at least a minimum temporal perspective” and it is linked to the desire to achieve personal objectives (Baumeister and Heatherton, 1996). Often the term “self-control” is used as a synonym, and it describes in more detail the urge to withstand impulses and urges – such as an impulse buy of a hedonic product instead of a useful and more practical utilitarian product (Hofman et. al., 2012). It can be challenging to keep the attention span high and to stick to self-regulation as external stimuli and personal goals interfere with each other and compete for behavioral resources (Knudsen (2007). Additionally, individuals need to have knowledge as to how to achieve their objective. This is usually stored within the memory and derived from past experiences. If this information is not present at the point of action and if there is no routine on how to access this information, self-regulation is not going to be successful and ends up



undirected (Baumeister and Heatherton, 1996). The ability to access this kind of memory is often referred to as working memory capacity. Research by Hofman et al (2008) has shown that people with a low capacity, who are presented with intriguing candy, behave more automatically, and react out of affect. But individuals who have a stronger working memory capacity have the motivation, strength, and ability to abstain from the temptation and can handle distracting and challenging situations better. This can especially be seen before, during or after decisions linked to purchases.

Bandura (1986) argues that self-efficacy plays a central role in self-regulatory processes. Meaning that peoples drive and confidence to have an impact on the surroundings is crucial to influence their motivation, goal setting and consequently their decision-making process. Additionally, people who have a strong impact act more solution-oriented, those who do not on the other hand, focus on themselves, their personal problems, and issues rather than the problem at hand (Bandura, 1989). Constantly challenging oneself and aiming towards a specific goal is dependent on the motivation put into achieving this goal. When in an environment alone, it is easy to influence focus and energy that is put into an act. But, among peers or a social environment, it can be difficult to maintain control over one's level of commitment. The constant need for happiness and contentment enhances the motivation to achieve goals and is often done via comparison with others (Bandura and Wood, 1989). All these aspects are part of self-regulatory behavior: the encouragement, the activity, and the evaluation (M.M. Bandura & Dweck, 1989). People who show higher motivation to make an impact seem to handle negative experiences better, come out stronger afterwards and act in a more analytical way (Festinger, 1954). When a person favors a spontaneous reaction rather than a well thought-out process, it is often based on an emotional, negative state of mind (Leith and Baumeister, 1996). Hence, irrational, impulsive purchases occur more often than a well thought out consumption decision based on reasoning (Loewenstein et al., 2001) as the overall mood nowadays seem to be negative rather than positive. With a lack of motivation and ability to refuse temptations and distractions, people can fail at self-regulation and fall victim to impulse purchases (Hofman et al., 2012).

To conclude, the coherent ability to self-regulation and self-control as well as an efficient use of the working memory, has an impact on emotional reactions and behaviors. As these are

present in both utilitarian and hedonic purchases, we can assume that these concepts apply to the decision-making process as well.

### **3 Formulation of hypotheses and study overview**

In chapter 2, a comprehensive review of the literature was provided, along with considerations of related and similar topics, from which hypotheses can be derived.

Scientific work by Bargh, Chen and Burrows (1996) for instance, has shown that people can be indirectly influenced by so-called ‘priming’. Priming entails the random activation of know-how in a contextual environment. This is comparable to the working memory, mentioned before. Events or visuals can activate behavior and reactions even if they are not consciously perceived. Therefore, one can assume that individuals may behave differently when presented with certain situational cues or triggers, regardless of their conscious control and intention. This form of priming manipulation will be used in the experimental study that follows hereafter. The thin line between a utilitarian and hedonic evaluation of a product is based on personal attributes, preferences, past, present and future. Literature has shown that in times of crisis, people tend to buy more essential products where one does not have to justify the decision to him or herself or others. Other sources say, that especially in these times, our need to change the current status quo and reward ourselves with a hedonic product increases. Choice and satisfaction will be measured with the first two hypotheses:

**H1: When compared to a control condition, a COVID-reminder increases the preference for utilitarian products.**

**H2: COVID-reminder leads to less anticipated satisfaction from hedonic products but not from utilitarian products.**

Products oftentimes possess both utilitarian and hedonic features. Therefore, consumers’ personal goals may determine whether consumption options are judged and perceived as more or less utilitarian or hedonic. This assumption leads to the third hypothesis:

**H3: The perceived degree of hedonism and utilitarianism changes when people are presented with a COVID-reminder.**

A study overview is provided below in the form of a conceptual framework.

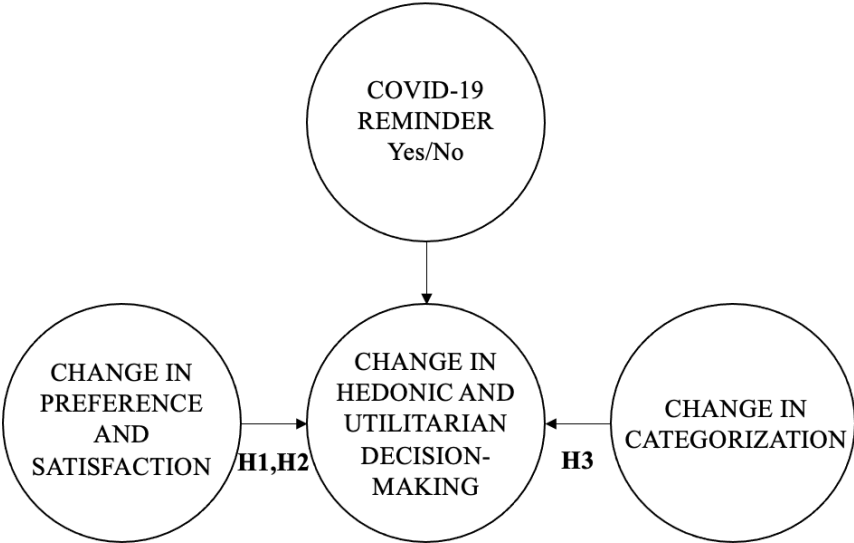


Figure 2: Conceptual framework

## 4 Methodology

In this chapter, the procedure followed to conduct the survey is explained. To test the hypotheses presented in chapter 3, an experimental research method was used. By manipulating the independent variable and creating two groups, the experimental and the control group, correlations can be compared, and environmental variances can be observed and analyzed (Ross and Morrison, 2004). After elaborating that news headlines and visuals can substantially impact emotions and hence behavior, this was chosen as the independent variable in both studies. By doing so, the author hopes to understand in what ways COVID-19 has influenced the purchasing behavior, since people are experiencing an immense interruption into their daily lives and their emotions. This technique serves as the priming manipulation.

### 4.1 Procedure

By using a quantitative method, the author ensured a representative result which provides enough information to make well-supported arguments and assumptions. However, the scope is still that of a university study and thus, cannot be equalized with a professionally conducted research. Questionnaires were distributed via a link, which was disseminated via email and

social media. This method provides benefits to participants as they are not limited in terms of time and space. (Evans & Mathur, 2005). It has several advantages, including lower cost and the ability to collect data from a number of individuals in a limited timeframe (Evans & Mathur, 2005). Additionally, participants had the opportunity to complete the survey in their own, personal space, which reduces uncertainty, pressure, and other constraints. By guaranteeing sensitivity in handling the provided information, their enthusiasm to participate was increased. However, it is important to keep in mind that this method also entail some disadvantages, as participants' focus cannot be monitored and there is a risk of distraction. Also, the author is not able to answer any occurring doubts. Therefore, simple, concise, and comprehensive questionnaires with closed response options were developed to minimize disadvantages. As the survey was sent out to a variety of different nationalities, the author made sure to use simple language and short sentences to avoid any miscommunication and -understanding.

A pre-test was not conducted due to time constrictions, but a trial run of each study was executed with acquaintances. Their feedback was collected and integrated into the design to make it as user-friendly and smooth as possible. A toned-down version of storytelling was used to make the topic vivid for participants. The survey was designed using Qualtrics, a platform that offers useful support when it comes to design, analysis and the export of data. Both questionnaires were online for five days.

### *Sampling*

For this study, random sampling was chosen. It enables a cost-efficient, easy, and quick collection of data (Etikan, 2016). It covers participants from the desired population who meet specific criteria, such as proximity, time availability and the enthusiasm to participate (Dornyei, 2007).

## **4.2 Study 1**

### **4.2.1 Participants**

Participants in this study were randomly selected and reached via social media platforms, the social network, friends, and family. A total of 102 people took part and voluntarily completed the online survey. 64,7% of respondents were female and 34,3% were male. One participant preferred not to disclose their gender identity. The majority of participants, 54%, was aged

between 25 to 34 years, followed by 34% being aged 16 to 24 years, 5% between 55 to 64 years and the remaining 8% was aged between 35 to 54 years. Most of the participants, namely 73,5%, are of German origin, followed by 8,8% of participants from Italy and 4,9% from Portugal. The remaining percentage was composed of participants from Bangladesh, Colombia, Iran, Ireland, Lithuania, Norway, Switzerland, UK, and US. 52% of respondents are currently studying and it is interesting to note that 28,4% experienced a change of employment during the pandemic (Appendix C).

#### **4.2.2 Materials**

The study entails several different scales and variables, which will be explained hereafter. The experimental condition in this study passively reminded the participants of the pandemic, while in the control condition, this reminder was absent.

##### *Variables and measures*

The **independent variable** in this study was the presence of a COVID-19 reminder and the absence of one, which they were randomly assigned to (experimental group vs. control group). Participants were asked to select the cover they were most likely to buy out of four options. For this paper, it is irrelevant what cover was chosen specifically. The sole purpose was to present the two groups with either Corona related covers or ‘regular’ ones. But to settle on one, participants had to look at all four covers and indicate their preference. This ensured that they were thoroughly looked at and their content was absorbed. The covers were from the magazines Vogue, Time, Los Angeles and Grazia. All of them are internationally available and should therefore be known to participants. In the COVID-reminder condition all four covers made clear reference to the current pandemic. Two people kissing with masks on, catchy headlines such as ‘Generation Pandemic’ and a nurse in scrubs clearly point toward the virus. In the control condition, the covers are from the same magazines. They show celebrities and headlines ranging from summer destinations to interviews with actors. The author made sure that the magazine brands were equal in both conditions to avoid biases. As mentioned before, the impact of headlines and news on emotions is immense. COVID-19 is an ever-present topic in everybody’s daily life – there is no arguing that. By using this priming technique however, participants were passively forced to think about COVID-19 just minutes before answering the survey – or not if they were assigned to the control group. This aims at triggering certain knowledge and habit

routines stored in the working memory so that participants can actively or passively make use of it and answer the subsequent questions accordingly (Appendix A).

The **dependent variable** includes the presentation of hedonic and utilitarian products to measure the preferred option in terms of choice and the expected outcome from both options, the satisfaction. Four pairs of products were visually presented, including a brief description of each product such as “Natural sparkling mineral water”. The products cover different categories with one utilitarian (U) and one hedonic (H) item each: drinks (sparkling water (U), cider(H)), food (chocolate bar (H), nut bar (U)), watches (functional watch (U), collector’s item(H)) and sunglasses (designer glasses(H), functional glasses(U)). To avoid monetary decision drivers, it was clarified that both products are priced the same and their level of quality is roughly equal. To measure participants preferred choice, they were asked to rate which of the two items they were more likely to buy on a 10-point Likert scale (1= Definitely product A, 10= Definitely product B). Independent from their answer to this question, respondents were then asked to imagine buying both product A and B and rate their expected level of pleasure from this purchase on a 10-point Likert scale (1=No pleasure at all, 10=Extreme pleasure). This procedure was repeated for all four product pairs. The pairs were identical to the previous question: cider/sparkling water, chocolate bar/healthy nut bar, functional watch/collector’s watch, designer sunglasses/practical sunglasses. The products were drawn from existing literature and based on a preceding study by Khan and Dhar (2006) and each of the two items represented a hedonic and a utilitarian option.

After, to measure participants’ mindset towards COVID-19 and its’ impact on their life and well-being, as well as their perception of judgement, a 5-point scale asked them to what extent six statements applied to them (1=Strongly disagree, 5= Strongly agree). These phrases were “I followed public recommendations and did my best to comply to them”, “People who got infected with COVID-19 were careless”, “People who are infected with COVID-19 are being judged”, “I expect to be judged if I ever got COVID-19 myself”, “I am afraid of COVID-19 and I believe it’s a threat to my health” and “Health and well-being are important to me” (Chen et al. 2019).

To measure respondents’ attitude towards death and fear, a modification of Templers (1970) Death Anxiety Scale (DAS) was used. Instead of using 15 statements, the author used 6 only to

ensure that participants' enthusiasm does not fade at this point of the questionnaire. Participants were asked to rate how statements such as "I am afraid to die" apply to them on a 5-point scale (1=Strongly disagree, 5=Strongly agree).

Afterwards, risk affinity was measured to find out, whether this would have a potential impact on product selection and decision-making. Respondents were asked to indicate the likeliness of engaging in the given statements on a 5-point scale (1=Very unlikely, 5=Very likely). The statements included mostly ethical backgrounds such as "Passing off somebody else's work as your own", social background and health/safety backgrounds such as "Exposing yourself to the sun without using sunscreen" and were based and modified off existing literature (Weber et al. 2002).

To sum it up, demographic data was collected. This included gender, age, nationality, highest degree of education, current employment status and finally the question whether this said status has changed at all during the pandemic.

#### **4.2.3 Procedure**

The questionnaire was composed of 5 sections: Introduction (1), Manipulation (2), Hedonic versus Utilitarian product comparison (3), Manipulation Check (4) and lastly Demographics (5). Prior to collecting any information, the author introduced herself, the purpose of the study and ensured anonymity concerning all collected data. The author underlined that consent is automatically given when continuing with the survey. Participants were then randomly assigned to either the section containing magazines with COVID-19 reminders on the covers or the ones without any. Subsequently, all participants continued with choosing between various pairs of products and product categories and indicated their likeliness to buy those products and what level of satisfaction they would expect if they were to buy them. Various product categories ensured a broader interpretation of the results. This section was followed by the Manipulation Check. Participants were presented with a matrix scale to indicate their attitude and behavior when it comes to COVID-19, death and risk. The two latter were adapted from previous literature by Templer (1970) and Weber, Blais and Betz (2002) and slightly modified to fit within the scope of this paper. Finally, demographics were collected and participants were informed about the recording of their results and were thanked for partaking.

#### 4.2.4 Design

The COVID-19 reminder was randomly assigned between subjects while the dependent variable, the product choice and expected satisfaction in terms of their hedonism and utilitarianism, was assigned within subjects.

### 4.3 Study 2

#### 4.3.1 Participants

In the second study, participants too, were selected randomly but among the social network of the author. A total of 93 people answered the survey, of whom 58,1% were male and 41,9% female. The largest age group was composed of 45 to 54 year olds, with 24%, followed by respondents aged 55 years or older with 22,8%, 21,7% being aged 35 to 44 years, 17,2 % aged 16 to 24 years and finally 13,7% aged 25 to 34 years. Most of participants are of German origin, representing 38,2% of the study. The second largest group, with 15,7% is from the United States of America, followed by 10,1% from Egypt and 9% from Brazil. The remaining respondents are from Serbia, Austria, Denmark, Chile, Norway and lastly Argentina. 62,4% are currently working in a full-time position, with 62,4% stating that their employment status has not changed during the pandemic (Appendix C).

#### 4.3.2 Materials

Study 2 only differentiates itself regarding the dependent variable. The rest of the survey structure is identical to the first one.

##### *Variables and measures*

As in study 1, participants were first presented with magazine covers with and without COVID-19 reminders (**independent variable**), amongst which they had to choose their most favored one (Appendix B).

To test how hedonic and utilitarian product attributes are categorized (**dependent variable**), an imaginative toothpaste advertisement was presented next (Appendix B). Toothpaste was chosen, as it can be seen as utilitarian as well as hedonic: it can prevent caries and at the same time lead to great breath and whiter teeth (Batra and Ahtola, 1990). The advertisement was created by the author and included a disclaimer that all of the information (e.g., brand name)



were fictional and solely created for the purpose of the study. The advertisement included 10 brand attributes (e.g., “fights germs” or “mint flavor”) which were arranged in a random order and included both hedonic and utilitarian characteristics. After that, brand attitude was measured to understand why people would buy toothpaste: out of a basic need (utilitarian) or due to more emotional reasons (hedonic). This was done using a five-point evaluative semantic differential (SD) scale identified by Osgood, Suci, and Tannenbaum (1957). In this case consisting of nine pairs: pleasant/unpleasant, useful/useless, good/bad, positive/negative, worthless/valuable, unfavorable/favorable, disagreeable/agreeable, harmful/beneficial, dislike/like (Batra and Ahtola, 1990). Next, to measure how participants perceive the previously seen attributes, they were asked to assign them to two categories: hedonic and utilitarian (see Batra and Ahtola, 1990). To ensure a common understanding, the author prior explained both terms and their meaning with the following statement: “For the next part, please read the following definitions carefully. Some products may be consumed for hedonic reasons, like pleasure, fun or contentment. Other products however, are consumed for utilitarian reasons, they are perceived as useful, practical and they fulfill your basic needs”. Lastly, participants were presented 20 products (e.g., dish detergent, chewing gum) and were asked to rate them according to their utilitarian or hedonic value on a 9-point utilitarian-hedonic scale (1=Utilitarian, 9= Hedonic) (Crowley et al., 1992). By doing so, the author aims to analyze the categorization of products from various groups in terms of their utilitarian or hedonic perception.

Following this, the questionnaire used the same materials and procedure of study 1 and aims to find out participants’ attitudes towards COVID-19, their risk affinity and death anxiety followed by the collection of demographic data.

### **4.3.3 Procedure**

The questionnaire was composed of six sections: Introduction (1), Manipulation (2), Toothpaste advertisement (3), Product Categorization (4), Manipulation Check (5) and lastly Demographics (6). Study 2 followed the same procedure as study 1, except for replacing the third section and adding a fourth.

#### **4.3.4 Design**

The COVID-19 reminder was randomly assigned between subjects while the dependent variable, the categorization of product attributes and categories, was assigned within subjects.

## **5 Results and analysis**

After closing the survey on Qualtrics, the data was downloaded and cleaned in Excel. Subsequently, the data was opened in SPSS (Statistical Package for the Social Sciences) and analyzed. The analysis will look at study 1 and study 2 separately, to ensure a thorough analysis and a better overview of results.

### **5.1 Results – Study 1**

To analyze the study, the results are divided into two steps. Firstly, a look at the manipulation check, and secondly the hypothesis testing.

#### **5.1.1 Manipulation Check**

There was a non-significant difference between the experimental ( $M=5.83$ ,  $SD=5.82$ ) and the control group ( $M=5.82$ ,  $SD=2.07$ ) when measuring their attitude towards the following statement “I am afraid of COVID-19 and I believe it’s a threat to my health.” ( $t(2)=-0.01$ ,  $p=0.986$ ) Indicating that the manipulation of the independent variable (COVID reminder vs. no COVID reminder) might not have been effective (Appendix D, Table 6).

#### **5.1.2 Hypothesis testing**

The subsequent part will explore the data in regard to **H1** and **H2**. For **H1**, the likeliness of buying rather product A or product B, hence the likeliness of buying either the utilitarian or the hedonic option provides valuable information (Appendix D, Table 7). To test whether there is a difference between the experimental group (COVID reminder) and the control group (no COVID reminder) an independent samples t-test was conducted. For this, a new variable was created, computing a mean from all four questions asking for the likeliness of buying either product A or product B. All product pairs were arranged in a way, that the hedonic product was presented on the left (0=Definitely product A) and the utilitarian product on the right (10=Definitely product B) except for the watches. In their case the order was reverse, which was considered in the analysis by computing a new variable. The participants who were

presented with the COVID-reminder ( $M=4.8208$ ,  $SD=1.62121$ ,  $t(2)=-1.339$ ,  $p=0.184$ ) demonstrated insignificantly higher levels of likeliness to buy the utilitarian product than the control group ( $M=4.39$ ,  $SD=1.64298$ ). The t-test revealed a non-significant main effect of the independent variable on the utilitarian product preference. Even though the mean values are concentrated predominantly more towards the hedonic products ( $<5$ ), the higher mean in the experimental group suggest that the data goes into the predicted direction, even if it is not significant.

To obtain even more insights, each product pair was looked at separately, instead of creating a mean. As already observed above, the experimental group shows higher levels when it comes to preferring utilitarian products. There is no significant main effect in the categories drinks ( $M_{\text{experimental}}=6.79$ ,  $SD_{\text{experimental}}=3.122$ ,  $M_{\text{control}}= 6.16$ ,  $SD_{\text{control}}= 3.53$ ,  $t(2)=-0.964$ ,  $p=0.337$ ), sweets ( $M_{\text{experimental}}=5.79$ ,  $SD_{\text{experimental}}=3.284$ ,  $M_{\text{control}}= 5.84$ ,  $SD_{\text{control}}= 3.765$ ,  $t(2)=0.68$ ,  $p=0.946$ ) and sunglasses ( $M_{\text{experimental}}=1.92$ ,  $SD_{\text{experimental}}=2.311$ ,  $M_{\text{control}}= 1.88$ ,  $SD_{\text{control}}= 2.662$ ,  $t(2)=-0.091$ ,  $p=0.928$ ). However, data shows significance regarding the last product category, watches ( $M_{\text{experimental}}=4.7736$ ,  $SD_{\text{experimental}}=2.96$ ,  $M_{\text{control}}= 3.68$ ,  $SD_{\text{control}}= 2.54$ ,  $t(2)=-2.006$ ,  $p=0.048$ ). The experimental group shows significantly higher levels of the DV than the control group. These results suggest that a COVID-reminder does indeed have an impact on the preference of buying rather utilitarian than hedonic products. However, there may be a reason for this observation. While the previous products were arranged so that the hedonic was on the left and the utilitarian on the right, this was not the case with the watch question. It remains to speculate whether the participants were simply inattentive or whether this observation is subject to empiricism.

To conclude, it can be said that according to the data, a COVID reminder does not necessarily lead to higher likeliness to buy utilitarian products instead of hedonic ones. But analysis also shows that this depends on the product category (in this case accessories such as watches).

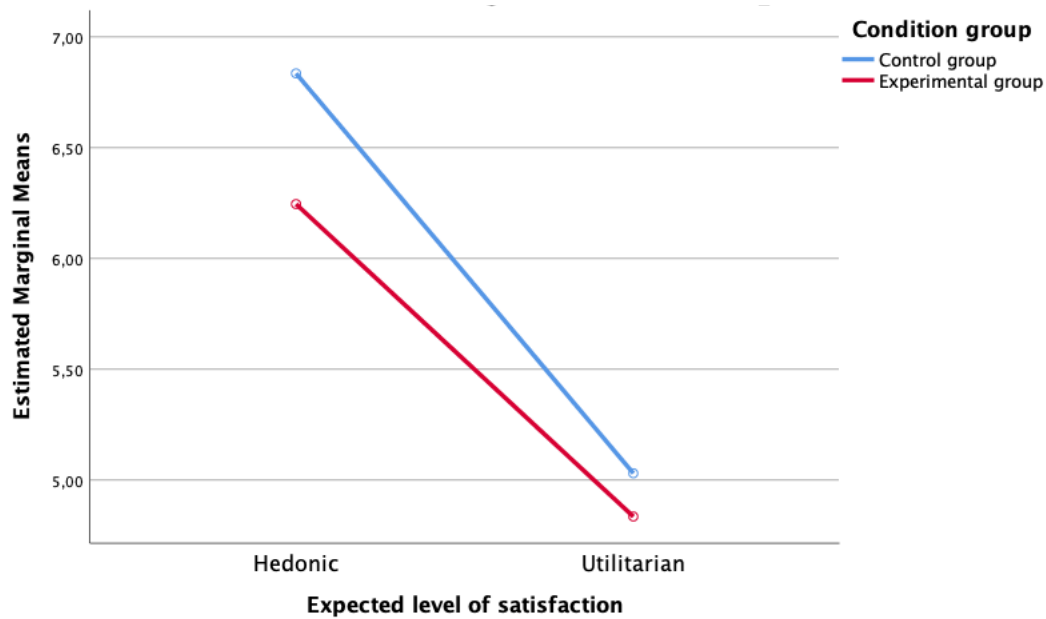
To test the second hypotheses, a t-test was used to check if there is any difference of satisfaction from hedonic and utilitarian products if there is a COVID reminder or not. Firstly, the **hedonic** products are tested, namely cider, mars bar, designer sunglasses and the collector's watch. Again, a mean average was calculated summing all four variables and dividing them by four. It was assumed that satisfaction from hedonic products increases without being reminded of COVID. As predicted the control group led to significantly higher levels of satisfaction from

hedonic products ( $M=6.84$ ,  $SD=1.32$ ,  $t(2)=2.353$ ,  $p=0.021$ ) than the experimental group ( $M=6.25$ ,  $SD=1.22$ ). This result suggests a significant difference between the control and experimental group when it comes to the expected satisfaction from hedonic products (Appendix D, Table 8). A look at each hedonic item by itself shows that only the Mars bar has a significant difference in satisfaction in the control group ( $M=7.08$ ,  $SD=2.481$ ,  $t(2)=2.17$ ,  $p=0.032$ ) and the experimental group ( $M=6.04$ ,  $SD=2.394$ ), revealing that the expected satisfaction may vary across different products and product categories.

Additionally, the **utilitarian** products are explored by using an independent t-test. The data is analyzed following the same steps as the hedonic products before: using the mean first and zooming into the results on a product level after. As predicted, there is difference in the experimental group ( $M=4.83$ ,  $SD=1.37$ ) and in the control group ( $M=5.03$ ,  $SD=1.32$ ) and there is no significant change in satisfaction ( $t(2)=0.458$ ,  $p=0.463$ ) when it comes to utilitarian products. A closer look at each utilitarian product individually confirms this result.

This could implicate that regardless of personal goals, utilitarian products remain to be seen as 'objective', neither gaining nor losing their level of satisfaction in times of change (Appendix D, Table 9).

After, a 2 (reminder vs. no reminder) x 2 (satisfaction from hedonic and utilitarian products) repeated measure ANOVA was executed to test for potential interaction. The ANOVA revealed a significant main effect of the COVID reminder manipulation ( $F(1,102)=4,878$ ,  $p=0.29$ ). When looking at the within-subject test results, a significant main effect of satisfaction from hedonic and utilitarian products is evident ( $F(1,102)=74,051$ ,  $p=0,000$ ). However, there does not seem to be any statistical significance between the two variables in terms of their interaction ( $F(1,102)=1,115$ ,  $p=0,293$ ). This is becoming visible when looking at the marginal means. The lines are very close to being parallel, which indicates that there is no interaction effect between the variables (Appendix D, Table 10).



**Figure 3 - Estimated means for satisfaction from hedonic and utilitarian products**

A brief look at the attitude towards death and fear may indicate how people felt after the manipulation. There is a significant difference between the experimental ( $M=4.94$ ,  $SD=1.94$ ) and the control group ( $M=5.84$ ,  $SD=2.35$ ) when looking at the statement “I am afraid of diseases” ( $t(2)=2.105$ ,  $p=0.038$ ), indicating that people are increasingly afraid of diseases after being presented with the magazine covers showing COVID related topic and images (Appendix D, Table 11).

Lastly, it was tested if the manipulation of the independent variable had any impact on the risk behavior of participants. Data shows significantly higher levels in the experimental group ( $M=9.71$ ,  $SD=1.6$ ,  $t(2)=2.74$ ,  $p=0.007$ ) than in the control group ( $M=8.92$ ,  $SD=1.29$ ) when participants were asked for their likeliness to buy an illegal drug. This was also the case when asked about their likeliness to shoplift, where the experimental group ( $M=8.63$ ,  $SD=1.06$ ,  $t(2)=2.55$ ,  $p=0.012$ ) too, showed higher levels than the control group ( $M=8.20$ ,  $SD=0.57$ ). This indicates that when exposed to a COVID reminder, peoples’ tendency to engage in riskier behavior increases and they may in return, aim for hedonic purchases instead of utilitarian ones as literature has implied (Appendix D, Table 12).

To summarize, there seems to be higher satisfaction when there is no COVID reminder when it comes to hedonic products. In the case of utilitarian products, no change was expected due to their product features. Utilitarian products can be analyzed more easily and quickly. Their product characteristics are usually clearly visible and are based on a certain, generally known norm so people know what to expect. Hedonic products and their performance on the other hand, are dependent on everyone's subjectivity and hence more sensitive and prone to contextual variance.

## **5.2 Results – Study 2**

Study 2 was mainly designed to provide answers to **H3**. After a brief manipulation check, the second part will test the hypotheses with the collected data.

### **5.2.1 Manipulation Check**

There was a significant difference between the experimental ( $M=5.78$ ,  $SD=2.32$ ) and the control group ( $M=4.3$ ,  $SD=2.04$ ) when measuring their attitude towards the following statement “I am afraid of COVID-19 and I believe it's a threat to my health.” ( $t(3)=-3.27$ ,  $p=0.002$ ) Indicating that the manipulation of the independent variable (COVID reminder vs. no COVID reminder) was effective (Appendix E, Table 13).

### **5.2.2 Hypothesis testing**

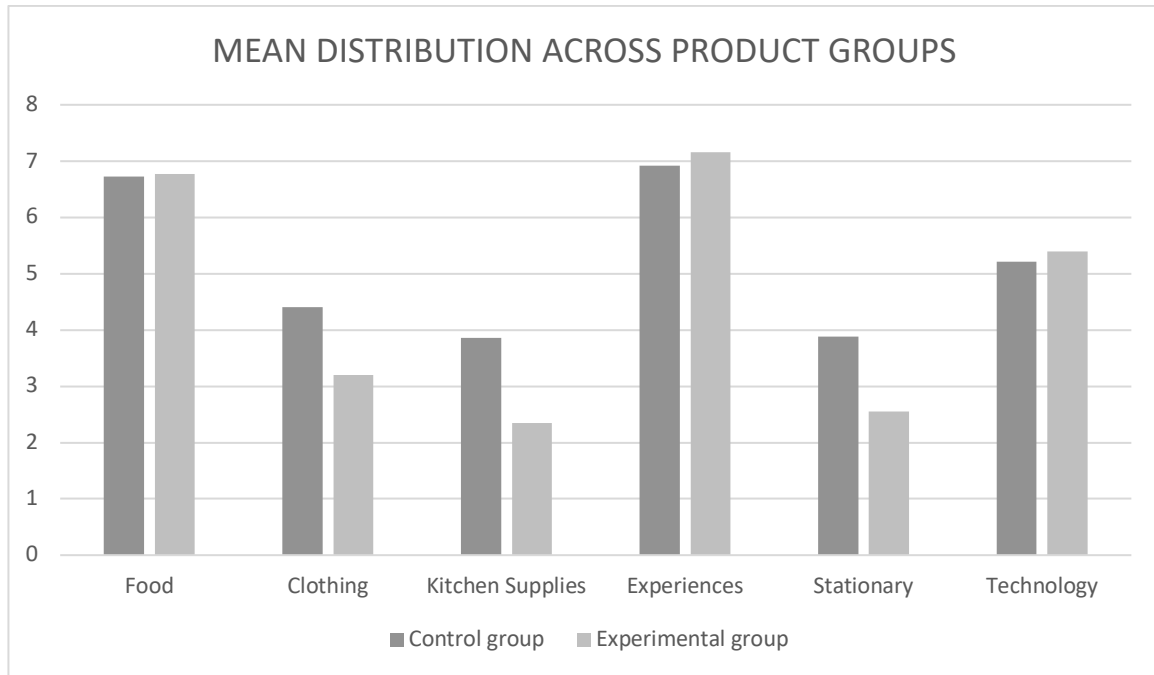
**H3** assumes that the perceived degree of hedonism and utilitarianism changes for participants in the experimental group. Firstly, the toothpaste advertisement will be analyzed by performing an independent t-test. Two groups were created assigning pleasant, good, positive, favorable, agreeable, like to the hedonic group and beneficial, useful, valuable to the utilitarian group. By doing so, the author wants to explore the reasons for which participants are buying a product such as toothpaste, which can be seen as hedonic and utilitarian equally. There was a significant difference between the experimental ( $M=2.99$ ,  $SD=0.57$ ) and the control group ( $M=3.24$ ,  $SD=0.52$ ) in the measure of hedonic reasons to buy toothpaste ( $t(3)=2.22$ ,  $p=0.029$ ). Such difference is also visible, when looking at the measures for hedonic reasons, where the control group ( $M=3.89$ ,  $SD=0.96$ ,  $t(3)=2.23$ ,  $p=0.028$ ) has slightly higher levels than the experimental group ( $M=3.47$ ,  $SD=0.85$ ). This confirms the results from study 1, indicating that people are buying toothpaste for hedonic reasons more frequently when there is no COVID reminder present (Appendix E, Table 14).

A frequency table gives information about how participants allocated the given attributes to either the hedonic or utilitarian group without taking into account the manipulation variable: “White & fresh” ( $N_{\text{hedonic}}=78$ ,  $N_{\text{utilitarian}}=15$ ), “Fights germs” ( $N_{\text{hedonic}}=19$ ,  $N_{\text{utilitarian}}=74$ ), “Extra whitening” ( $N_{\text{hedonic}}=75$ ,  $N_{\text{utilitarian}}=18$ ), “Improves gum health” ( $N_{\text{hedonic}}=19$ ,  $N_{\text{utilitarian}}=74$ ), “Strong teeth” ( $N_{\text{hedonic}}=26$ ,  $N_{\text{utilitarian}}=67$ ), “Better formula” ( $N_{\text{hedonic}}=59$ ,  $N_{\text{utilitarian}}=34$ ), “Sensitive” ( $N_{\text{hedonic}}=44$ ,  $N_{\text{utilitarian}}=49$ ), “Effective against caries” ( $N_{\text{hedonic}}=2$ ,  $N_{\text{utilitarian}}=91$ ), “Super cleaning” ( $N_{\text{hedonic}}=32$ ,  $N_{\text{utilitarian}}=61$ ), “Mint flavor” ( $N_{\text{hedonic}}=83$ ,  $N_{\text{utilitarian}}=10$ ). A subsequent t-test indicated that there is no significant difference in the control and the experimental group when assigning product attributes to hedonic ( $t(3)=0.199$ ,  $p=0.848$ ) or to utilitarian categories ( $t(3)=-0.01$ ,  $p=0.992$ ), indicating that the manipulation does not have an effect on the categorization of product attributes (Appendix E, Table 15 & 16).

Furthermore, it was aimed to explore different products from various groups in terms of their perceived level of hedonism or utilitarianism. To make this part a little clearer, instead of analyzing each of the 20 items, six groups were created and the items assigned accordingly: Food (soft drinks, chewing gum, potato chips, cooking oil, ice cream, peanut butter, chocolate candy bar), Clothing (athletic shoes, jeans, cold weather jacket, luggage), Kitchen supplies (dish detergent, paper towels, kitchen utensils), Experiences (vacation resorts, expensive restaurants), Stationary (calculator, inexpensive pen) and Technology (cars, stereo).

As predicted, the perceived level of utilitarianism (0) and hedonism (8) changes when presented with a COVID-reminder. A t-test revealed that there were no significant main effects of the manipulation variable in the categories food, experiences and technology indicating that there is no difference in the perception of items such as chewing gum, vacation resorts or cars in the experimental and the control group (Appendix E, Table 17).

However, a significant effect of the manipulation variable can be observed in the categories clothing ( $M_{\text{experimental}}=3.19$ ,  $SD_{\text{experimental}}=1.31$ ,  $M_{\text{control}}=4.4$ ,  $SD_{\text{control}}=1.5$ ,  $t(3)=4.124$ ,  $p=0.000$ ), kitchen supplies ( $M_{\text{experimental}}=2.34$ ,  $SD_{\text{experimental}}=1.47$ ,  $M_{\text{control}}=3.86$ ,  $SD_{\text{control}}=1.54$ ,  $t(3)=4.853$ ,  $p=0.000$ ) and stationary ( $M_{\text{experimental}}=2.55$ ,  $SD_{\text{experimental}}=1.8$ ,  $M_{\text{control}}=3.88$ ,  $SD_{\text{control}}=1.86$ ,  $t(3)=3.486$ ,  $p=0.001$ ). These results state that when presented with a COVID reminder, people perceive clothing items such as athletic shoes, jeans, or luggage as more utilitarian. Kitchen supplies and stationary products on the other hand, are perceived as more hedonic in the experimental group.



**Figure 4: Mean distribution of perceived level of utilitarianism (0) and hedonism (8)**

The data sheds light on the extent to which participants thought about health issues such as death and disease after exposure. There is no significant difference between the experimental (M=5.15, SD=2.09) and the control (M=5.02, SD=2.23) group when asked to what extent the statement “I am afraid to die” applies to them. The same applies for the experimental (M=5.59, SD=1.85) and the control (M=5.23, SD=1.82) group regarding the statement “I am afraid of diseases”. It can therefore be assumed that the exposure of the manipulation did not affect fear of death or diseases and thus did not influence participants emotions in a negative way (Appendix E, Table 18).

Finally, a look at the risk affinity will provide assumptions for their subsequent purchasing behavior. There are significant variances between the control and the experimental group when asked about their likeliness of engaging in several risky activities. Other than in study 1, the higher levels are found mainly in the control group (M=8.77, SD=0.729,  $t(3)=-1.997$ ,  $p=0.049$ ) compared to the experimental group (M=8.48, SD=0.65) when asked about the likeliness of “Passing off somebody else’s work as own”. Same goes for “Cheating on an exam”: control group (M=9.68, SD=1.06,  $t(3)=-3.1$ ,  $p=0.002$ ) shows higher means than the experimental group (M=8.96, SD=1.17) and for “Forging somebody’s signature” where the experimental group (M=8.50, SD=0.75) has lower levels than the control group (M=9.28, SD=1.32,  $t(3)=-3.39$ ,



$p=0.001$ ). This indicates that without being reminded of COVID, people tend to engage in more risky behavior so there might not be an effect on the purchasing behavior after all (Appendix E, Table 19).

## **6 Main findings**

**H1** stated, that when compared to a control condition, COVID reminders increase the preference for utilitarian products. The analyzed data has shown that, even though results were mainly non-significant, there is indeed a tendency towards preferring the utilitarian products in the experimental group. Utilitarian products show a clearer message on what their use and intention is aimed at, making it easier for people to justify their purchase. Literature has shown that sometimes, people choose justifiability over preference, which is in line with the data. With a pandemic in mind, it may be hard to justify a hedonic purchase rather than a utilitarian one, which caters to basic needs, usefulness, and practicability. Participants of this study apparently showed great ability of self-regulation as they withstood the urge to purchase the hedonic product and instead indicated greater preference for the utilitarian one.

In **H2**, it was assumed that a COVID reminder leads to less anticipated satisfaction from hedonic products but not from utilitarian products. The analysis revealed that the hypothesis is true, as expected satisfaction from hedonic products is higher in the control group and there is no relevant change in satisfaction of utilitarian products. This led to the conclusion that regardless of personal intentions, utilitarian products are not seen as subjective, unlike hedonic ones, neither gaining nor losing satisfaction in unsettling times. Satisfaction may be anticipated less, due to fear of judgement from others. These outcomes are considered at time of purchase leading to less expected pleasure.

**H3** assumes that the perceived degree of hedonism and utilitarianism changes when people are presented with a COVID reminder. The data has proven this hypothesis to be true as various product groups changed in their degree utilitarianism (clothing) and hedonism (kitchen supplies, stationary items). It is worth emphasizing that for some products there is a difficulty in identifying the hedonic value from the start, hence they are more affected by manipulation due to their high level of usefulness rather than pleasurable.

## 6.1 Discussion and Conclusion

For this part, it is important to recall the initial research question: “To what extent has the pandemic outbreak influenced the evaluation of hedonic and utilitarian purchasing decisions”.

A tendency to neglect hedonic and chose the utilitarian option instead in times of crisis builds on existing evidence. People concentrate on what is needed to fulfil their basic desires and needs. However, these results do not fit into the assumption that natural disasters often entail negative emotions, stress and fear which in turn leads to irrational, impulse purchases. Additionally, literature has suggested that there occurs a preference for hedonic items in times of crisis but mostly if people don't have to justify their behavior to themselves or to others. While anonymity was assured in the introduction of the survey, participants may have kept in mind that the data will be analyzed nevertheless, which in turn influenced their answers.

Results indicate that there is a shift in the perceived level of hedonism and utilitarianism when people are reminded of the pandemic. This is in line with other sources showing a correlation between external influences such as a worldwide health crisis and consumption behavior. The manipulation of the dependent variable was successful which builds on research from by Bargh, Chen and Burrows (1996) who proved that behavior can be passively influenced with priming.

While the data shows the hedonic and utilitarian purchasing decision making, it is unclear to what extent emotions play a role. Every emotion triggers a reaction and decision, they are complex and defined differently by every individual. A circumstantial stimulus activates feelings, in this case this activation happened through the COVID reminder. However, due to the lack of insights of the specific emotions (e.g., fear, joy, excitement) that have been triggered, it is uncertain which one of them drove the decision to show more affinity for a utilitarian product and less anticipated satisfaction from hedonic products. An emotional reaction activates consumers first response and influences the decision to purchase said item (Frijda, 1986). This process is not accompanied by one singular emotion though, which makes predicting it challenging.

To conclude it can be confirmed that the concept of hedonism and utilitarianism is truly not as simple as black and white. This paper did not deal with the definition of both terms but solely explored their correlation with purchase preference, expected purchase satisfaction and

peoples' understanding when it comes to assigning products to them both. The decision-making process alone is accompanied by a number of emotions, both positive and negative, and the Corona pandemic adds on to those. An interruption of every aspect of life, including the way people make decisions and consume. The desire to focus on basic items has been proven, hedonic items expect to bring more joy when people do not have masks or overcrowded intensive cares in mind. Half of the participants show more fear of diseases when they were just reminded of the virus, confirming that emotions are being altered in times of this pandemic.

## **6.2 Managerial Implications**

### Managing expectations

As this paper points at, it is challenging to investigate peoples' minds and read their emotions. Marketers simply cannot foresee what feelings a customer has experienced before or during the purchase, but they can try to manage expectations. Literature shows that utilitarian products are bought due to their clear message: a useful, beneficial item that fulfils needs and leads to satisfaction and does not demand justification. This is what clients expect and even if their expectations are exceeded, it only leads to quiet satisfaction (Chitturi et al 2008). Consequently, utilitarian products should convey their obvious advantages in a clear and rational manner. When utilitarian products are neglected, it may be because their unique selling proposition is not clear or because customers are afraid of opinions – especially in times like these.

### Mix and Match

As an earlier example has emphasized, some items include both hedonic and utilitarian attributes to the same extent. As this research has shown, expected satisfaction from hedonic products is higher, without a COVID reminder. However, with masks, social distancing, and home office the pandemic is ever present and the expected satisfaction lower. Past research proved that if a hedonic product exceeds customers' expectations, it results in joy and enthusiasm and consequently loyalty and positive word-of-mouth. Such an opportunity for free advertising should be considered when creating a marketing mix.

### Underlining safety

Consumers are looking for items that provide them with security and trust. For marketers this means, highlighting these product attributes, especially for utilitarian products. With so much

time spent at home, a strategy should be to make this time as pleasant as possible and offer products that can support the protection of the virus.

#### Future outlook

Additionally, it should not be forgotten that there will be a time post pandemic. Undoubtedly, the past two years will leave their mark in society and in consumer behavior. Marketing research can help prepare for this time and in understanding how this in turn will evolve in the future. Anticipatory strategic planning is key.

### **6.3 Limitations and future research**

Almost every research entails limitations, which in turn can lead to impulses for future research. Although this research offers interesting academic and managerial insights into the concept of consumer behavior and its' link to utilitarianism and hedonism, it too, has some constraints.

The first one refers to the research instruments used, namely online surveys. The researcher does not have any control over the surroundings participants have, when answering the survey (Ilieva et al., 2002). Due to this, it is difficult to tell whether they were attentive enough to give qualitative and focused answers.

Social pressure might have impacted participant's while answering the surveys. Rather than answering honestly, they might have adapted their answer to feel good about themselves or impress somebody else (Larson, Larson and Johnson, 2019) – this phenomenon is called social desirability bias.

Another limitation is that the survey was mainly shared on online platforms. Since many surveys are distributed on these platforms, the interest of participants to spend their time on them is low. Consequently, the sample size was rather small, and it might be interesting to conduct it in a bigger scale to get more representative results. Even though the survey reached several ethnical groups, the majority of respondents are German, due to the author's origin and due to the fact that the survey was spread among family, friends and the social network. This too, must be acknowledged as a limitation.

It is also important to point at the frequent deviation between consumers' perspectives and their actual consumption behaviors (Shaw et al., 2016). Therefore, it is likely that some participants indicated their intentions rather than their actual behaviors when completing the survey, which may have influenced the results. Especially when asked for their likeliness and satisfaction of a product that may or may not have been foreign to them. As a result, further research should be conducted to test the actual behavior of consumers, for example in field experiments.

Literature has indicated that there is a rather thin line between hedonism and utilitarianism. This was accounted for in the second study when participants were asked how they see the listed products instead of asking them for a definition.

Additionally, as the data has shown, hedonic and utilitarian consumption is not always accompanied by solely one emotion. Surely, the direct purchase leads to an emotional response, yet it is unknown how this person felt before and to what extent previous feelings have an impact on the purchase. So, when deciding between the presented products, there is no indication about the current state of mind. This is something, future research could control for. One way to do so, is by measuring respondents' emotional state before and after the manipulation.

Future research could include more independent and dependent variables. This topic leaves a lot of room for exploration. In this paper, the products originate from various groups and cover a broad range of categories. It could be interesting to focus on one specific area, say the luxury segment, as it seems to be indestructible, yet an international pandemic such as the Corona virus surely presents a challenge for the industry. Including the income as well as the social status certainly offers a lot of space for research as well. Also, studies could test if participants chose products differently when they must trade one for the other. This could show implications regarding the desired payoff. Additionally, more dependent variables would provide even further conclusions and could lead to more detailed insights into the potential shift in consumer behavior when it comes to hedonic and utilitarian decision-making. One impulse that has already been looked at in the past is the shift in decision-making when deciding for oneself or for others. It might be reasonable to think that people would chose differently between a hedonic and a utilitarian option when the goal is gifting somebody else instead of buying for oneself, for instance.

## References

- Auger, P., and Devinney, T. M. (2007). 'Do what consumers say matter? The misalignment of preferences with unconstrained ethical intentions'. *Journal of Business Ethics*, 76(4), 361–383.
- Bain & Company (2020). 'Wie der Luxusmarkt unter der Corona-Pandemie leidet.' [online] Available at: <https://www.horizont.net/marketing/nachrichten/bain--company-wie-der-luxusmarkt-unter-dercorona-pandemie-leidet-183006> (Accessed 22 November 2021).
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*, Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A.(1989). 'Perceived self-efficacy in the exercise of personal agency.' *The Psychologist: Bulletin of the British Psychological Society*, 2, 411-424.
- Bandura, A., & Wood, R. E. (1989). 'Effect of perceived controllability and performance standards on self-regulation of complex decision making.' *Journal of Personality and Social Psychology*, 56, 805-814.
- Bandura, M. M., & Dweck, C. S. (1989). *The relationship of conceptions of intelligence and achievement goals to achievement-related cognition, affect and behavior*. Manuscript submitted for publication.
- Bargh, J. A., Chen, M., Burrows L. (1996). 'Automaticity of Social Behavior: Direct Effects of Trait Construct and Stereotype Activation on Action'. *Journal of Personality and Social Psychology*, 71(2), 230-244.
- Bargh, J. (1997). 'The automaticity of everyday life.' In R. Wyer (Hrsg.), *Advances in social cognition* (S. 1–61).
- Batra, R., & Ahtola, O. T. (1991). 'Measuring the hedonic and utilitarian sources of consumer attitudes.' *Marketing Letters*, 2(2), 159–170.

- Baumeister, R.F. and Heatherton, T.F. (1996) 'Self-regulation failure: an overview.' *Psychol. Inq.* 7, 1–15
- Bazerman, M. H., Tenbrunzel, A. E. & Wade-Bezoni, K. (1998). 'Negotiating with yourself and losing: Making decisions with competing internal preferences.' *Academy of Management Review*, 23 (2), 225-241.
- Belk, R. W. (1988). 'Possessions and the extended self.' *Journal of Consumer Research*, 15, 139–168.
- Besson, E. K. (2020) *COVID-19 (Coronavirus): Panic Buying and Its Impact on Global Health Supply Chains*. Available online: <https://blogs.worldbank.org/health/covid-19-coronavirus-panic-buying-and-its-impact-global-health-supply-chains> (Accessed 18 November 2021).
- Bettman, J. R. (1979), *An Information Processing Theory of Consumer Choice*, Reading, MA: Addison-Wesley.
- Black, S. and Cusbert, T. (2012). *Durable Goods and the Business Cycle*. Available online: <http://www.rba.gov.au/publications/bulletin/2010/sep/pdf/bu-0910-2.pdf> (Accessed 10 November 2021).
- Brandsynario (2013). *Open Happiness with Coke's Happy Can*. Available online: <https://www.brandsynario.com/open-happiness-with-cokes-happy-can/> (Accessed 22 November 2021).
- Caprara, G. V., Alessandri, G., Eisenberg, N., Kupfer, A., Steca, P., Caprara, M. G., & Abela, J. (2012). 'The positivity scale.' *Psychological Assessment*, 24, 701–712.
- Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). 'Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers.' *Journal of Business Ethics*, 97(1), 139–158.

- Chitturi, R., Raghunathan, R., & Mahajan, V. (2007). 'Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Trade-Offs Mediate Product Preferences.' *Journal of Marketing Research*, 44(4), 702–714.
- Chitturi, R., Raghunathan, R., & Mahajan, V. (2008). 'Delight by Design: The Role of Hedonic versus Utilitarian Benefits.' *Journal of Marketing*, 72(3), 48–63.
- Crowley, A. E., Spangenberg, E. R., & Hughes, K. R. (1992). 'Measuring the hedonic and utilitarian dimensions of attitudes toward product categories.' *Marketing Letters*, 3(3), 239–249.
- Deloitte (2014). *Driving through the consumer's mind: Steps in the buying process*. Available online: <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/manufacturing/in-mfg-dtcm-steps-in-the-buying-process-noexp.pdf>. (Accessed 16 November 2021).
- Diefenbach, S. and Hassenzahl, M., (2017). *Psychologie in der nutzerzentrierten Produktgestaltung*.
- Dornyei, Z. (2007). *Research Methods In Applied Linguistics*. Oxford University Press.
- Duden (2021). *Hedonismus*. Available online: <https://www.duden.de/rechtschreibung/Hedonismus> (Accessed 9 November 2021).
- Edell, J., & Burke, M. (1987). 'The power of feelings in understanding advertising effects.' *Journal of Consumer Research*, 14, 421–433.
- Elmore, C. (2017). *Irma: Frenzied buying in Palm Beach, St. Lucie regions led state*. The Palm Beach Post. Available online: <https://www.palmbeachpost.com/business/data-firm-tracked-how-hurricane-irma-store-sales-boomed-went-bust/LIDVXIL3qlqJGLlaosfSiL/> (Accessed 20 November 2021).
- Esch, F.-R. (2013). *Strategie und Technik des Automobilmarketing*. Wiesbaden: Springer Gabler.



- Etikan, I. (2016). 'Comparison of Convenience Sampling and Purposive Sampling.' *American Journal of Theoretical and Applied Statistics*, 5(1), 1.
- Evans, J. R., & Mathur, A. (2005). 'The value of online surveys.' *Internet Research*, 15(2), 195–219.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Forbes, Sharon L. (2017). 'Post-disaster consumption: analysis from the 2011 Christchurch earthquake.' *The International Review of Retail, Distribution and Consumer Research* 27: 28–42.
- Frijda, N. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Frijda, N. (1988). 'The laws of emotion.' *American Psychologist*, 43(5), 349–358.
- Gourville, J.T. and Norton, M.I. (2014). 'Consumer Behavior and the Buying Process.' *Harvard Business Publishing*, 6 ff.
- Gupta, Dr. M. et al., D. M. G. et al. . (2020). 'Impact of E-Marketing on Consumer Behaviour.' *International Journal of Mechanical and Production Engineering*
- Hassenzahl, M. (2003). The Thing and I: Understanding the Relationship Between User and Product. In M. A. Blythe, A. F. Monk, K. Overbeeke & P. C. Wright (Hrsg.), *Funology: From Usability to Enjoyment* (S. 31–42). Dordrecht: Kluwer.
- Hirschman, E. and Holbrook, M., (1982). 'Hedonic Consumption: Emerging Concepts, Methods and Propositions.' *Journal of Marketing*, 46(3), p.92.
- Hirschman, E. and Holbrook, M., (1982). 'The experiential aspects of consumption: Consumer Fantasies, Feelings and Fun'. *Journal of Consumer Research*, Vol. 9.
- Hofmann, W. et al. (2008) 'Working memory capacity and self- regulatory behavior: toward an individual differences perspective on behavior determination by automatic versus controlled processes.' *Journal of Personality and Social Psychology*, Vol. 95, 962–977

- Hsee, C., & Hastie, R. (2006). 'Decision and experience: Why don't we choose what makes us happy?' *Trends in Cognitive Sciences*, 10(1), 31–37.
- Hsee, C. K., Yang, Y., Gu, Y., & Chen, J. (2009). 'Specification seeking: how product specifications influence consumer preference.' *Journal of Consumer Research*, 35(6), 952–966.
- Hsee, C. K., Zhang, J., Yu, F., & Xi, Y. (2003). 'Lay Rationalism and Inconsistency between Predicted Experience and Decision.' *Journal of Behavioral Decision Making*, 16, 257–272.
- Ilieva, J., Baron, S., & Healey, N. M. (2002). 'Online Surveys in Marketing Research.' *International Journal of Market Research*, 44(3), 1–14.
- Kahneman, D., & Varey, C. (1991). *Notes on the psychology of utility*. In J. Elster & J. Roemer (Hrsg.), *Interpersonal comparisons of well-being* (S. 127–163). Cambridge: Cambridge University Press.
- Kameda, T. and Reid, H. (2015). Herd behaviour. In *Emerging Trends in the Social and Behavioural Sciences*. Hoboken: John Wiley & Sons.
- Khan, U. and Dhar, R. (2006). 'Licensing Effect in Consumer Choice.' *Journal of Marketing Research*, 43(2), pp.259-266.
- Kilgo, D. K., Yoo, J. and Johnson T. J. (2019). Spreading Ebola panic: newspaper and social media coverage of the 2014 Ebola health crisis. *Health Communication* 34: 811–17.
- Knudsen, E.I. (2007) 'Fundamental components of attention.' *Annu. Rev. Neurosci.* 30, 57–78
- Konow, J., & Earley, J. (2008). 'The hedonistic paradox: Is homo economicus happier?' *Journal of Public Economics*, 92(1), 1–33.
- Larsen, J., McGraw, A., & Cacioppo, J. (2001). 'Can people feel happy and sad at the same time?' *Journal of Personality and Social Psychology*, 81(4), 684–696.

- Larson, L., Larson, P. and Johnson, D., (2019). 'Differences in Stubble Height Estimates Resulting from Systematic and Random Sample Designs.' *Rangeland Ecology & Management*, 72(4), pp.586-589.
- Lazarus, R. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Leith, K. P., & Baumeister, R. F. (1996). ,Why do bad moods increase self-defeating behavior? Emotion, risk tasking, and self-regulation.' *Journal of Personality and Social Psychology*, 71(6), 1250–1267.
- Loewenstein, G. F., E. U. Weber, C. K. Hsee, and N. Welch. (2001). 'Risk as feelings.' *Psychological Bulletin* 127: 267–86.
- Loxton, M., Truskett, R., Scarf, B., Sindone, L., Baldry, G. and Zhao, Y., (2020). 'Consumer Behaviour during Crises: Preliminary Research on How Coronavirus Has Manifested
- Lu, J., Liu, Z., & Fang, Z. (2016). Hedonic products for you, utilitarian products for me. *Judgment and Decision Making*, 11, 332-341.
- Consumer Panic Buying, Herd Mentality, Changing Discretionary Spending and the Role of the Media in Influencing Behaviour.' *Journal of Risk and Financial Management*, 13(8), p.166.
- Moraes, C., Carrigan, M., & Szmigin, I. (2012). 'The coherence of inconsistencies: Attitude-behaviour gaps and new consumption communities.' *Journal of Marketing Management*, 28(1–2), 103–128.
- Morris, W. (1999). The mood system. In D. Kahneman, E. Diener, & N. Schwarz (Hrsg.), *Well-being: The foundations of hedonic psychology* (S. 169–189). New York: Russell Sage Foundation.
- Okada, E.M. (2005). 'Justification effects on consumer choice of hedonic and utilitarian goods.' *Journal of Marketing Research*, 42, 43-53.
- Osgood, C. E., G. J. Suci, and P. H. Tannenbaum. (1957). *The Measurement of Meaning*. Urbana, IL: University of Illinois Press.

- O'Curry, S., & Strahilevitz, M. (2001). 'Probability and mode of acquisition effects on choices between hedonic and utilitarian options.' *Marketing Letters*, 12(1), 37–49.
- Ross, S.M. and Morrison, G.R., (2004). 'Experimental Research Methods', *Handbook of Research on Educational Communications and Technology*, 2<sup>nd</sup> edition, p. 1021.
- Schmiedt, J.A., (2009). 'Affective Forecasting: Auswirkungen von Emotionsvorhersagen auf Konsumentenentscheidungen' p.18 ff.
- Schmitt, B. (1999). *Experiential marketing: How to get customers to sense, feel, think, act, and relate to your company and brands*. New York: Free Press.
- Shaw, D., McMaster, R., & Newholm, T. (2016). 'Care and Commitment in Ethical Consumption: An Exploration of the 'Attitude–Behaviour Gap.''' *Journal of Business Ethics*, 136(2), 251–265.
- Sheth, J. (2020). 'Impact of Covid-19 on consumer behavior: Will the old habits return or die?' *Journal of Business Research*, 117, 280-283.
- Sheth, J., & Kellstadt, C. H. (2020). Next frontiers of research in data driven marketing: Will techniques keep up with data tsunami? *Journal of Business Research*.
- Sterman, J. D., & Dogan, G. (2015). "I'm not hoarding, I'm just stocking up before the hoarders get here.": Behavioral causes of phantom ordering in supply chains. *Journal of Operations Management*. <https://doi.org/10.1016/j.jom.2015.07.002>
- Suls, J. M., & Miller, R. L. (1977). *Social comparison processes: Theoretical and empirical perspectives*. Washington, DC: Hemisphere.
- Slovic, P., Finucane, M., Peters, E., & MacGregor, D. (2002). The affect heuristic. In T. Gilovich, D. Griffin, & D. Kahneman (Hrsg.), *Heuristics and biases: The psychology of intuitive judgment* (S. 397–420). Cambridge: Cambridge University Press.
- Templer, D. I. (1970). 'The Construction and Validation of a Death Anxiety Scale.' *The Journal of General Psychology*, 82(2), 165–177

- WHO (2021). *Timeline: WHO's COVID-19 response*. Available at: [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline?gclid=Cj0KCQiA-K2MBhC-ARIsAMtLKRvh3bYRke5MKIaqvJ1ZgbqLtYB9rdlX-6jjJ63InGDuaLfH8Ppwj9saAkpEEALw\\_wcB#event-0](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline?gclid=Cj0KCQiA-K2MBhC-ARIsAMtLKRvh3bYRke5MKIaqvJ1ZgbqLtYB9rdlX-6jjJ63InGDuaLfH8Ppwj9saAkpEEALw_wcB#event-0) (Accessed 10 November 2021).
- Weber, E. U., Blais, A.-R., & Betz, N. E. (2002). 'A domain-specific risk-attitude scale: measuring risk perceptions and risk behaviors.' *Journal of Behavioral Decision Making*, 15(4), 263–290.
- Wiederhold, M., & Martinez, L. F. (2018). 'Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry.' *International Journal of Consumer Studies*, 42(4), 419–429.
- Xiao, C. (2020). 'A novel approach of consultation on 2019 novel coronavirus (COVID-19)-related psychological and mental problems: Structured letter therapy.' *Psychiatry Investigation*, 17(2), 175–176.
- Yildirim, M., & Güler, A. (2021). *Positivity explains how COVID-19 perceived risk increases death distress and reduces happiness*. *Personality and Individual Differences*
- Yuen, Kum F., Xueqin Wang, Fei Ma, and Kevin X. Li. (2020). 'The psychological causes of panic buying following a health crisis.' *International Journal of Environmental Research and Public Health* 17: 3513

## Appendix

### Appendix A – Online Survey 1

I would like to begin by thanking you for participating in this survey. It will take no longer than 7 minutes.

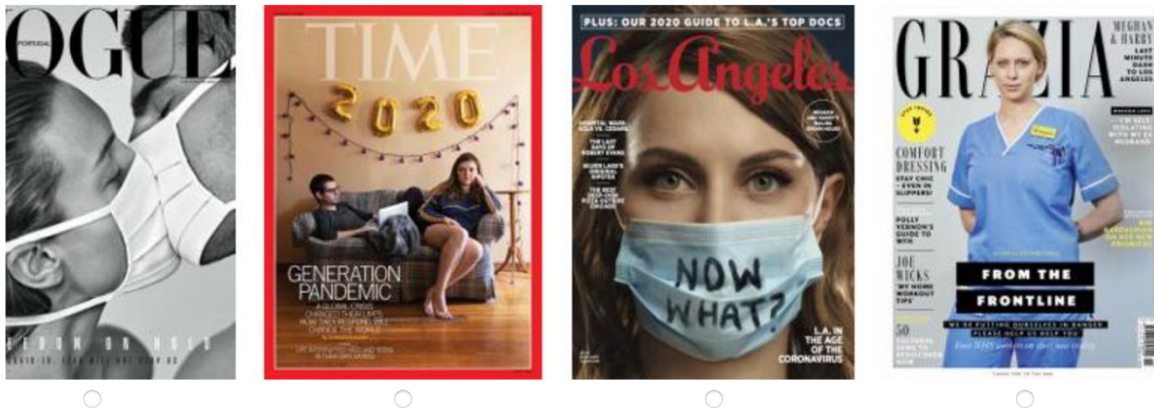
I am a Master student at Católica Lisbon School of Business and Economics majoring in Strategic Marketing and I am conducting this survey for the purpose of my dissertation.

The survey will explore the participants' buying behavior and how personal attributes influence decision-making in various product categories.

All answers will be treated completely confidential and will be anonymized. You can take as much time as you need and stop the survey at any time. By continuing you consent to participating in this survey.

1 – Imagine browsing through a supermarket. You begin by stopping at the news stand. Please indicate which of the following magazines you would be most likely to buy.

Option 1:



Option 2:



You are now continuing your way through the supermarket. Your next stop is the beverage aisle followed by the snack area. Finally, you stop at the jeweler next door.

Imagine you are considering which of the following products you will buy. Note that these two products have the same price:



**A**

*“Cold and tasty apple cider”*



**B**

*“Natural sparkling mineral water”*

2 – Which of the two items are you more likely to buy?

Definitely product A											Definitely product B	
0	1	2	3	4	5	6	7	8	9	10		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3	

– Imagine buying product A, how much pleasure do you expect from this purchase?

No pleasure at all											Extreme pleasure	
0	1	2	3	4	5	6	7	8	9	10		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4	

– Imagine buying product B, how much pleasure do you expect from this purchase?

No pleasure at all											Extreme pleasure	
0	1	2	3	4	5	6	7	8	9	10		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		

Imagine you are considering which of the following products you will buy. Note that these two products have the same price:



**A**

*“Creamy chocolate bar with caramel”*



**B**

*“Healthy, vegan nut bar”*

5 – Which of the two items are you more likely to buy?

Definitely product A								Definitely product B			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

1 – Imagine buying product A, how much pleasure do you expect from this purchase?

No pleasure at all								Extreme pleasure			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

1 – Imagine buying product B, how much pleasure do you expect from this purchase?

No pleasure at all								Extreme pleasure			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Imagine you are considering which of the following products you will buy. Note that these two products have the same price:



**A**

*"Functional watch with technical basics"*



**B**

*"A collector's item with highly detailed features"*

8

– Which of the two items are you more likely to buy

Definitely product A								Definitely product B			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

9

– Imagine buying product A, how much pleasure do you expect from this purchase?

No pleasure at all								Extreme pleasure			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

10

– Imagine buying product B, how much pleasure do you expect from this purchase?

No pleasure at all								Extreme pleasure			
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Imagine you are considering which of the following products you will buy. Note that these two products have the same price:





**A**

*“Italian Designer sunglasses, highly resistant, light weighted”*



**B**

*“American frames, useful for sports and outdoor activities, resistant to impact”*

11

– Which of the two items are you more likely to buy?

Definitely product A

0 1 2 3 4 5 6 7 8 9 10

Definitely product B

12

– Imagine buying product A, how much pleasure do you expect from this purchase

No pleasure at all

0 1 2 3 4 5 6 7 8 9 10

Extreme pleasure

13

– Imagine buying product B, how much pleasure do you expect from this purchase?

No pleasure at all

0 1 2 3 4 5 6 7 8 9 10

Extreme pleasure

Please recall the past 2 years.

14 – Please read the following statements and indicate to what extent they apply to you

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I followed public recommendations and did my best to comply to them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who got infected with COVID-19 were careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who are infected with COVID-19 are being judged.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect to be judged if I ever got COVID-19 myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of COVID-19 and I believe it's a threat to my health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being are important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15 – Please read the following statements and indicate to what extent they apply to you.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am afraid to die.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It doesn't make me nervous when people talk about death.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The thought of death never bothers me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of diseases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often think about how short life is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the future contains nothing I should be afraid of.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16 – Consider the statements below, please indicate your likeliness of engaging in these activities using the given scale.

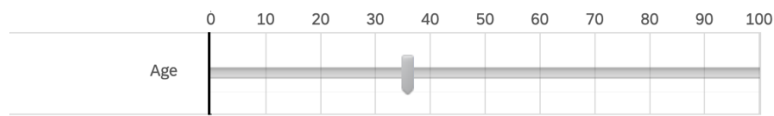
	Very unlikely	Unlikely	Not sure	Likely	Very likely
Admitting that your tastes are different from those of your friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passing off somebody else's work as your own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not wearing a helmet when riding a motorcycle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying an illegal drug for your own use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheating on an exam.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regularly eating high cholesterol foods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forging somebody's signature.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shoplifting a small item (e.g. a lipstick or a pen).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exposing yourself to the sun without using sunscreen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nearly done – this is the last step before completing the survey.

17 – What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

18 – How old are you?



19 – What is your nationality?

▼ Afghanistan (1) ... Zimbabwe (1357)

20 – What is the highest degree or level of education you have completed?

- Less than High School
- High school graduate or similar
- Bachelors degree
- Masters degree
- PhD degree

21 – What is your current employment status?

- Student
- Full-time worker
- Part-time worker
- Unemployed
- Retired
- Other

22 – Has your employment status changed during the pandemic?

- No, it hasn't.
- I lost my job.
- I changed jobs.
- My working hours were reduced.
- I took time off.
- I was promoted.
- None of the above.

## Appendix B – Online survey 2

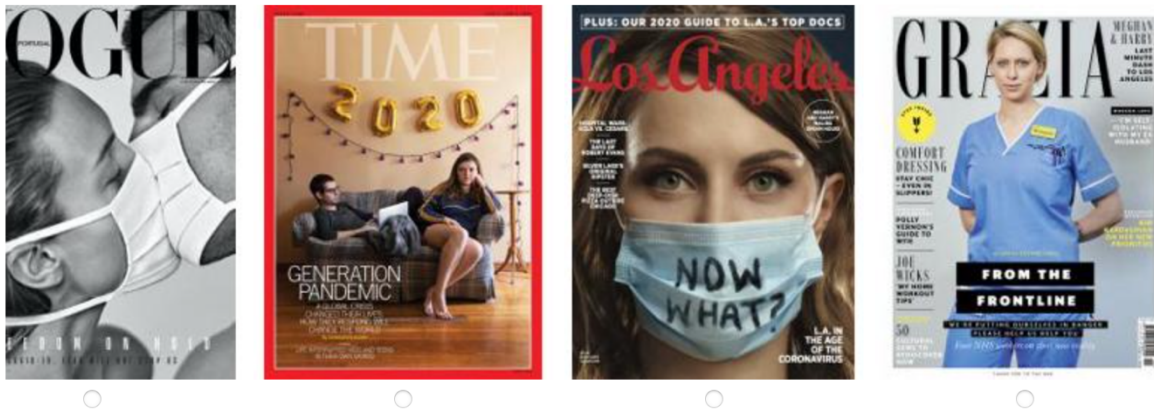
I would like to begin by thanking you for participating in this survey. It will take no longer than 7 minutes.

I am a Master student at Católica Lisbon School of Business and Economics majoring in Strategic Marketing and I am conducting this survey for the purpose of my dissertation. The survey will explore the participants' buying behavior and how personal attributes influence decision-making in various product categories.

All answers will be treated completely confidential and will be anonymized. You can take as much time as you need and stop the survey at any time. By continuing you consent to participating in this survey.

1 – Imagine browsing through a supermarket. You begin by stopping at the news stand. Please indicate which of the following magazines you would be most likely to buy.

Option 1:



Option 2:



Please look at the following advertisement launched by SMILE Ltd. The product they are introducing is a toothpaste with various product attributes seen on the right called HELMEX.

The brand and product are completely made up by the author for the purpose of this study and do not have any connection to existing brands or products.



2 – Based on the given information, please rate the brand on the following scale.

	1	2	3	4	5	
Pleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Unpleasant
Useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Useless
Good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Bad
Positive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Negative
Worthless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Valuable
Unfavorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Favorable
Disagreeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agreeable
Harmful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Beneficial
Dislike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Like

For the next part, please read the following definitions carefully.  
Some products may be consumed for **hedonic** reasons, like pleasure, fun or contentment.



Other products however, are consumed for **utilitarian** reasons, they are perceived as useful and practical and fulfill your basic needs.

3 – Please assign the product attributes seen before into the two categories.

Items	HEDONIC
WHITE & FRESH	
FIGHTS GERMS	
EXTRA WHITENING	
IMPROVES GUM HEALTH	
STRONG TEETH	
BETTER FORMULA	
SENSITIVE	
EFFECTIVE AGAINST CARIES	
SUPER CLEANING	
MINT FLAVOR	
	UTILITARIAN

4

– Please think about the following items and rate to what extent you think they are more hedonic or more utilitarian.

	Utilitarian (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Hedonic (9)
Soft drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chewing gum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potato chips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooking oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ice Cream	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peanut butter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chocolate candy bar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Athletic shoes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dish detergent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calculators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Paper towels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jeans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kitchen utensils	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inexpensive pen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cold weather jacket	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Luggage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vacation resorts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expensive restaurants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stereo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please recall the past 2 years.

5 – Please read the following statements and indicate to what extent they apply to you.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I followed public recommendations and did my best to comply to them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who got infected with COVID-19 were careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who are infected with COVID-19 are being judged.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect to be judged if I ever got COVID-19 myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of COVID-19 and I believe it's a threat to my health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being are important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1 – Please read the following statements and indicate to what extent they apply to you.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am afraid to die.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It doesn't make me nervous when people talk about death.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The thought of death never bothers me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am afraid of diseases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often think about how short life is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the future contains nothing I should be afraid of.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1 – Consider the statements below, please indicate your likeliness of engaging in these activities using the given scale.

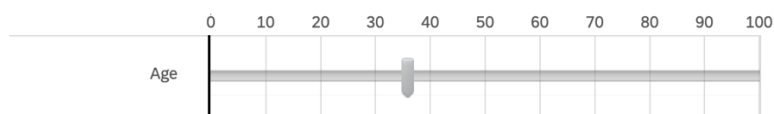
	Very unlikely	Unlikely	Not sure	Likely	Very likely
Admitting that your tastes are different from those of your friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Passing off somebody else's work as your own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not wearing a helmet when riding a motorcycle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying an illegal drug for your own use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheating on an exam.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regularly eating high cholesterol foods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forging somebody's signature.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shoplifting a small item (e.g. a lipstick or a pen).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exposing yourself to the sun without using sunscreen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Nearly done – this is the last step before completing the survey.

1 – What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

9 – How old are you?



10 – What is your nationality?

▼ Afghanistan (1) ... Zimbabwe (1357)

11 – What is the highest degree or level of education you have completed?

- Less than High School
- High school graduate or similar
- Bachelors degree
- Masters degree
- PhD degree

12 – What is your current employment status?

- Student
- Full-time worker
- Part-time worker
- Unemployed
- Retired
- Other

13 – Has your employment status changed during the pandemic?

- No, it hasn't.
- I lost my job.
- I changed jobs.
- My working hours were reduced.
- I took time off.
- I was promoted.
- None of the above.

Appendix C – Demographic characterization of Study 1 and Study 2

**Table 1: Gender**

	<b>Study 1</b>	<b>Study 2</b>
<b>Gender</b>	%	%
Male	34,3	58,1
Female	64,7	41,9
Prefer not to say	1	0
Total	100	100

**Table 2: Age**

	<b>Study 1</b>	<b>Study 2</b>
<b>Age</b>	%	%
16 – 24 years	34	17,2
25 – 34 years	54	13,7
35 – 44 years	4	21,7
45 – 54 years	3	24
> 55 years	5	22,8
Total	100	100

**Table 3: Highest level of education**

	<b>Study 1</b>	<b>Study 2</b>
<b>Education</b>	%	%
Less than High School	0	3,2
High School graduate or similar	18,8	21,5
Bachelor's degree	48,5	32,3
Master's degree	32,7	43
PhD degree	0	0
Total	100	100

**Table 4: Employment status**

	Study 1	Study 2
Employment status	%	%
Student	52	20,4
Full-time worker	38,2	62,4
Part-time worker	7,8	5,4
Unemployed	1	0
Retired	0	11,8
Other	1	0
Total	100	100

**Table 5: Change in employment status**

	Study 1	Study 2
Change in Employment status	%	%
No it hasn't	54,9	62,4
I lost my job.	3,9	1,1
I changed jobs.	28,4	12,9
My working hours were reduced.	7,8	0
I took time off.	0	10,8
I was promoted	2	0
None of the above	2,9	12,9
Total	100	100

## Appendix D – Results from Study 1

**Table 6: Independent Samples T Test – COVID**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Following recommendations	5.94 (1.89)	5.48 (1.98)	-1.20	100	0.231
People who got COVID were careless	2.9 (1.67)	2.9 (1.77)	-0.01	100	0.991
People who get COVID are being judged	4.25 (1.70)	4.14 (1.73)	-0.323	100	0.747
I expect to be judged if I ever got COVID	3.48 (1.86)	4.06 (1.85)	1.57	100	0.119
I am afraid and COVID is a threat	5.83 (2.01)	5.82(2.07)	-0.017	100	0.986
Health is important to me	7.81 (1.81)	8.58 (1.05)	2.61	100	0.01



**Table 7: Independent Samples T Test – Likeliness to buy**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Likeliness to buy Cider (0) or Water (10)	6.79 (3.122)	6.16 (3.53)	-0.96	101	0.337
Likeliness to buy Mars (0) or Nutbar (10)	5.79 (3.28)	5.84 (3.765)	0.07	101	0.946
Likeliness to buy Italian (0) glasses or sporty glasses (10)	1.92 (2.311)	1.88 (2.662)	-0.09	101	0.928
Likeliness to buy Collector's watch (0) or Casio (10)	4.77 (2.96)	3.68 (2.54)	-2.01	101	0.048
Ø Likeliness to buy hedonic (0) or utilitarian (10) item	4.8208 (1.62)	4.3900 (1.64)	-1.34	101	0.184

**Table 8: Independent Samples T Test – Satisfaction from hedonic products**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Cider	5.96 (2.218)	6.58 (2.12)	1.44	101	0.152
Mars	6.04 (2.39)	7.08 (2.48)	2.17	101	0.032
Collector's watch	6.4 (2.53)	7.06 (2.58)	1.32	101	0.191
Italian sunglasses	6.58 (1.88)	6.62 (2.16)	0.09	101	0.929
Ø Satisfaction from hedonic items	6.25 (1.22)	6.83 (1.32)	2.35	101	0.021

**Table 9: Independent Samples T Test – Satisfaction from utilitarian products**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Water	6.17 (2.67)	5.78 (2.38)	-0.779		0.438
Nutbar	5.81 (2.237)	6.22 (2.92)	0.9		0.426
Casio	4.26 (3.37)	4.28 (2.46)	0.033		0.974
Sporty glasses	3.09 (2.467)	3.84 (2.819)	1.43		0.155
Ø Satisfaction from utilitarian items	4.83 (1.37)	5.03 (1.31)	0.737	101	0.463

**Table 10: Repeated measure ANOVA – Interaction between satisfaction and condition group**

Variable	F	df	Sig.
Condition group	4.878	1	0.029
Expected satisfaction from hedonic and utilitarian products	74,051	1	0,000
Condition group * Expected satisfaction from hedonic and utilitarian products	1,115	1	0,293

**Table 11: Independent Samples T Test – Fear of death**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
I am afraid to die	5.32 (2.47)	5.62 (2.47)	0.794	100	0.429
It doesn't make me nervous when people talk about death	4.79 (2.62)	4.8 (2.47)	0.023	100	0.982
The thought of death never bothers me	3.22 (1.98)	2.98 (2.22)	-0.569	100	0.571
I am afraid of diseases	4.94 (1.94)	5.84 (2.35)	2.105	100	0.038
I often think about how short life is	4.58 (2.00)	5.90 (1.71)	3.575	100	0.001
I think the future contains nothing I should be afraid of	3.42 (1.92)	3.32 (1.70)	-0.286	100	0.776

**Table 12: Independent Samples T Test – Risk Affinity**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Admitting that tastes are different	10.94 (0.626)	10.92 (0.778)	0.132	97	0.895
Passing off somebody else's work as own	8.87 (1.03)	9.00 (1.03)	-0.660	97	0.511
Not wearing a helmet	8.98 (1.40)	9.08 (1.35)	-0.363	97	0.717
Buying an illegal drug	9.71 (1.60)	8.92 (1.29)	2.742	97	0.007
Cheating on an exam	9.92 (1.16)	9.60 (1.34)	1.299	97	0.197
Eating high cholesterol foods	9.82 (1.12)	9.78 (0.84)	0.220	97	0.826
Forging somebody's signature	9.12 (1.19)	8.76 (1.04)	1.596	97	0.114
Shoplifting	8.63 (1.06)	8.20 (0.571)	2.550	97	0.012
Not using sunscreen	10.58 (1.22)	10.10 (1.16)	2.012	97	0.047

## Appendix E – Results from Study 2

**Table 13: Independent Samples T Test – COVID**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Following recommendations	6.57 (1.42)	5.74 (2.15)	-2.16	91	0.033
People who got COVID were careless	3.91 (2.38)	3.0 (2.3)	-1.87	91	0.064
People who get COVID are being judged	4.0 (1.93)	5.36 (2.56)	2.886	91	0.005
I expect to be judged if I ever got COVID	3.96 (2.09)	4.13 (1.76)	0.42	91	0.671
I am afraid and COVID is a threat	5.78 (2.32)	4.3 (2.04)	-3.27	91	0.002
Health is important to me	7.13 (2.39)	6.7 (2.3)	-0.88	91	0.381

**Table 14: Independent Samples T Test – Motivation to buy toothpaste**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Hedonic reasons to buy toothpaste	2.9964 (0.571)	3.2482 (0.522)	2.219	91	0.029
Utilitarian reasons to buy toothpaste	3.47 (0.859)	3.8936 (0.963)	2.231	91	0.028

**Table 15: Frequency distribution for product attributes**

Attribute	Hedonic	Utilitarian
White and fresh	78	15
Fights germs	19	74
Extra whitening	75	18
Improves gum health	19	74
Strong teeth	26	67
Better formula	59	34
Sensitive	44	49
Effective against caries	2	91
Super cleaning	32	61
Mint flavor	83	10

**Table 16: Independent Samples T Test – Hedonic and utilitarian products attributes**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Total of hedonic attributes	36 (31.43)	40 (23.94)	0.199	7	0.848
Total of utilitarian attributes	51.2 (32.33)	51 (24.6)	-0.01	7	0.992

**Table 17: Independent Samples T Test – Product categories**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Food	6.77 (1.12)	7.73 (1.1)	-0.187	91	0.852
Clothing	3.19 (1.31)	4.4 (1.5)	4.124	91	0.000
Kitchen Supplies	2.34 (1.47)	3.86 (1.54)	4.853	91	0.000
Experiences	7.15 (1.61)	6.91 (1.84)	-0.659	91	0.512
Stationary	2.55 (1.80)	3.88 (1.86)	3.486	91	0.001
Technology	5.39 (1.27)	5.21 (1.72)	-0.567	91	0.572

**Table 18: Independent Samples T Test – Fear of death**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
I am afraid to die	5.15 (2.09)	5.02 (2.23)	-0.291	91	0.771
It doesn't make me nervous when people talk about death	6.02 (2.41)	3.89 (2.35)	-4.303	91	0.000
The thought of death never bothers me	3.74 (2.42)	3.91 (1.85)	0.393	91	0.695
I am afraid of diseases	5.59 (1.85)	5.23 (1.82)	-0.926	91	0.357
I often think about how short life is	4.04 (1.82)	4.74 (2.54)	1.526	91	0.131
I think the future contains nothing I should be afraid of	4.28 (1.80)	4.30 (2.02)	0.038	91	0.969

**Table 19: Independent Samples T Test – Risk affinity**

Variable	Experimental M (SD)	Control M (SD)	t	df	Sig.
Admitting that tastes are different	11.07 (0.49)	10.81 (0.711)	2.02	91	0.046
Passing off somebody else's work as own	8.48 (0.658)	8.77 (0.729)	-1.997	91	0.049
Not wearing a helmet	9.17 (1.25)	9.30 (0.998)	-0.528	91	0.599
Buying an illegal drug	8.80 (1.06)	9.15 (1.45)	-1.298	91	0.198
Cheating on an exam	8.96 (1.17)	9.68 (1.06)	-3.119	91	0.002
Eating high cholesterol foods	10.15 (1.22)	10.30 (0.931)	-0.646	91	0.520
Forging somebody's signature	8.50 (0.753)	9.28 (1.32)	-3.398	91	0.001
Shoplifting	8.67 (1.30)	8.72 (1.11)	-0.197	91	0.844
Not using sunscreen	10.63 (1.28)	10.19 (1.05)	1.799	91	0.075

