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MASTER'S THESIS

**THE EFFECT OF MESSAGE FRAMING AND PRODUCT TYPE  
ON CONSUMER BUYING BEHAVIOUR**

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## **AUTHORSHIP STATEMENT**

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# 1. INTRODUCTION

As a result of a complex, information-riddled world where time is scarce, the human brain has optimized its mental processes by using shortcuts to help us make decisions and solve problems with relative speed. Ever since Simon's (1955) and Kahneman and Tversky's (1974) research, it's been known that consumers don't always make decisions with perfect logic, but instead operate with bounded rationality. This can result in a number of unconscious errors in thinking, also called cognitive biases, which consist of a range of behaviours, one of them being the framing effect. Kahneman and Tversky were the first to set ground for this particular bias with their research on prospect theory (Kahneman & Tversky, 1979) and framing of decisions (Tversky & Kahneman, 1981), both suggesting a shift of preferences as a result of presenting a problem in different ways. Over the next four decades, the framing effect and its power of fine linguistic distinctions on regulating decision-making has been researched in various fields and contexts. And while it has been most widely studied in the domain of health behaviours, several studies have linked it to advertising as well, aiming to find out how humans make their choices based on the frame they're faced with and using these findings to form a strategy in advertising communication.

The framing effects in literature are divided into three distinct categories, with attribute and goal framing being the two most commonly used in the advertising context. The two types are most frequently studied by re-describing two alternative options in terms of either emphasizing gain or loss. Theory suggests that positive frames work better in the case of attribute framing, whereas in the case of goal framing, it's the negative frames that are more effective in persuading the consumer (Levin et al., 1998). Despite the solid theoretical frameworks that explain why certain frames work better and predict the most effective ones, the findings across research are not only inconclusive but also conflicting and vary across different research domains. While findings mainly imply that consumers respond more positively to advertisements that are framed as a gain (Smith, 1996; Li et al. 2020) and suggest the potential benefits (Segev et al. 2015), there is some evidence that consumers are, in fact, more responsive when the message is portrayed as a loss (Moon et al., 2016). The inconsistencies therefore give space for more research, especially such that combines attribute and goal framing, in order to tests which frames work better when either of the two approaches are applied.

Previous research combined the effect of framing with various moderators such as cognitive and affective, including involvement, affect, need for cognition and information processing (Falkowski & Jabłońska, 2019). The most systematic research of moderators has been done by Rothman et al. (2006) who identified that the type of advocated behaviour and the risk it carries moderates the influence of framing with gain frames being more effective with prevention behaviours and loss frames for detection behaviours. Moreover, Smith (1996) suggested that not only personal characteristics, such as the education, determine the influence a certain frame has on the consumer, but also that the decisions vary based on the type of product being framed.

One of the most important aspects that determine the consumer behaviour is the value offered to the consumer, which tends to be bi-dimensional and can be divided into two types of products: hedonic and utilitarian (Ahtola, 1985). While framing has been widely researched across literature, different framing approaches combined with product types, namely utilitarian and hedonic, are rarely discussed. Even though literature exploring shopping behaviour has revealed that hedonic and utilitarian dimensions affect shopping

activities (Khan & Dhar, 2010), the effect of product type on frame preferences is still underexplored and inconclusive. Various products, which fall into either of the two categories, have been used as stimuli in framing studies, yet the results differ. In some cases of framed utilitarian products, positive frames seem to be preferred (Bubrock et al., 2019, Borin et al., 2011), while in other cases, negative frames are preferred (Kusumasondjaja, 2018; Kuo et al., 2019). Similar inconsistencies can be observed in studies on framed hedonic products; individuals in some researches preferred the positive frames (Kuo et al., 2019; Kusumasondjaja, 2018) and negative frames in others (Lee et al., 2018).

When delving deeper into the effect of message framing strategies and product types on consumer behaviour, the inconclusiveness of findings continues, giving enough basis for quality research but also enough space to better explore the problem. We can conclude that the literature is not unanimous regarding how the two specific types of message framing and different product types affect the purchase behaviour of an individual. All the white spots in previous findings therefore give opportunity for further research of the problem, which I will explore in this thesis.

The purpose of this thesis is therefore to understand how different types of framing and product type affect consumer buying behaviour and thus help understand how to create an effective message to be used in marketing communication. More specifically, it aims investigate whether purchase intention, attitude towards the product and perception of quality differ based on type of message framing, namely attribute and goal framing, and across utilitarian and hedonic products.

This thesis consists of a theoretical and empirical part. In the first part, I present scientific and professional articles, books and internet sources and identify relevant facts, opinions and analyses. First, the framing effect, relevant typologies and its theoretical interpretations are explained. Next, I explore the framing effect in the advertising context and its effect on the consumer behaviour. In the second part, I explain the consumption values and do an in-depth analysis of the hedonic and utilitarian distinction and their effect on the consumer behaviour in terms of consumption, concluding with a relevant research overview.

The empirical part consists of the hypotheses development based on previous literature and focuses on the effect of different framing approaches and product type on the consumer buying behaviour. These hypotheses are then tested in the research part of the thesis, by having the participants rate eight situations in the form of advertisements, which is then followed by the analysis and the explanation of the results. In the discussion part, I present implications, recommendations for further research and limitations, which are then followed by the conclusion.



## 2. THEORETICAL FRAMEWORK

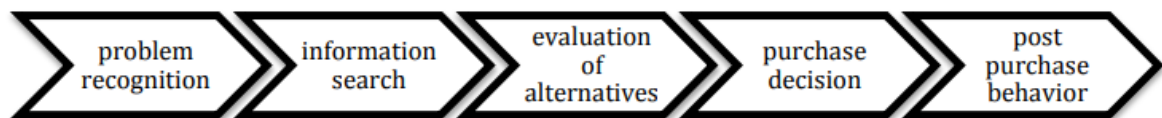
### 2.1 Consumer decision making

Consumers are faced with decisions about what products or services to choose, buy and use on a daily basis. Moreover, they are presented with a higher variety of alternative options, increasing the complexity of making a purchase decision. There is a number of available information from various sources, which make the consumer decide on the amount of effort to put in and possible value trade-offs. Elements such as high number of attributes, difficulty to process attribute values and high level of uncertainty about values of attributes all increase the choice difficulty.

An early theory on consumer decision making is regarded to as the economic man model, which assumes that consumers are consistently rational and highly motivated to act out of self-interest. The perfect rationality results in the perfect foresight of the consequences of choosing the options that are available and is able to identify the one that maximizes their personal utility. Even though this model might help explain some consumer decisions, it is too simplistic and idealistic, assuming that human beings always act rationally.

Some later models that study the decision making process are all based on the assumption that buyers go through a cognitive, affective and behavioural stage when adopting a product. According to the EKB model developed by Chandron (1979), the process of buyer's decision-making process can be divided into five basic stages: problem recognition, where one identifies the need for a product, followed by information search for more information on the product, as shown in Figure 1. The set of identified alternatives are then evaluated and based on the chosen parameters, the consumers makes a purchase decision. The user might then want to revise their views on the product as part of the post purchase behaviour.

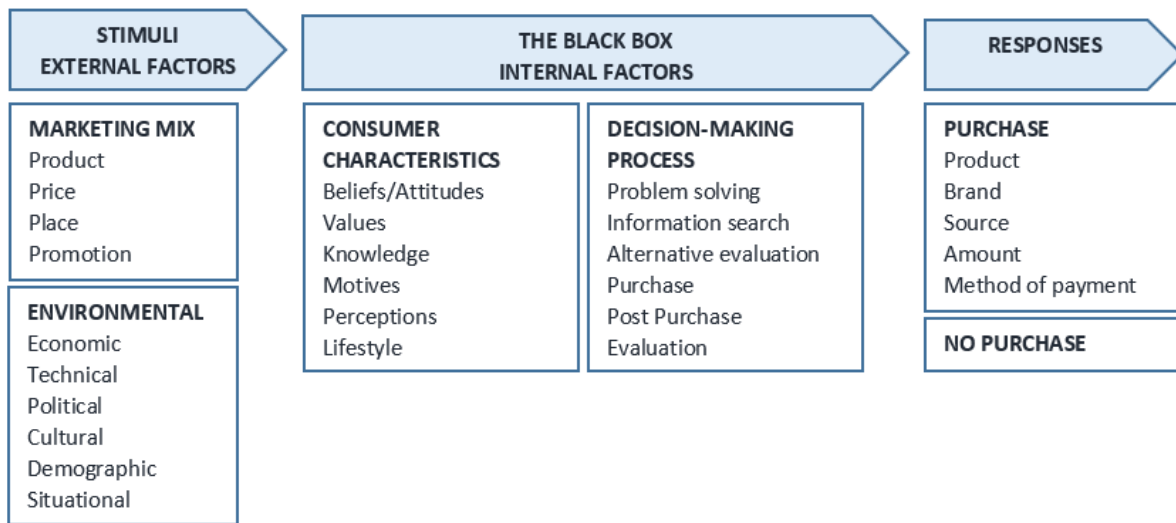
*Figure 1: The basic five-stages of consumer decision making*



*Source: Adapted from Chandron (1979)*

Later on, a more comprehensive model was developed, including the factors that influence consumer buying behaviour. It starts with the external stimuli that can be divided into marketing and environmental stimuli, which help consumers shape their choices. The internal factors are described as the buyer's "black box" which consists and interacts with buyer's characteristics and decision processes to generate responses, conveyed as buyer's purchase decision (Ramya & Ali, 2016).

Figure 2: The Black box model of consumer behaviour



Source: Adapted from Kotler et al. (2005)

The model, also depicted in Figure 2, assumes that no matter what happens in the black box, the decision is based on a conscious and rational process. However, most marketers agree that consumer behaviour is often irrational and based on emotional decisions and that it's actually the irrationality and emotion that make buyers susceptible to marketing stimuli. In many cases such as saving or health care, we can see both rational behaviours as well as irrational elements, which can often exceed the expected rationality (Ramya & Ali, 2016).

Herbert Simon (1957) was the first to propose the bounded rationality concept, which challenges the notion of the economic man. The concept addresses several constraints that the consumer faces in their environment, such as limited time, information and cognitive capacity. As a result, the consumers base their decisions on mental shortcuts or heuristics which help them make their choices. This characterization was the starting point for behavioural economics, which was built on the critique of the theory of rational decision-making which takes into account the irrational component and different emotions, which influence human behaviour.

Kahneman and Tversky further denied the purely rational human behaviour in economy. In the early 1970s, they proposed the term 'cognitive bias' to explain the human tendency to make consistent but faulty patterns responding to judgement and decision dilemmas. In their research of heuristics and biases they addressed the questions of how people make decisions when their resources are limited as well as identify the specific constraints or biases that influence our judgement and decision-making. While heuristics are useful in saving efforts, they can lead to systematic errors or cognitive biases, which can also be viewed as consistent deviations from rational choices. Different kinds of cognitive biases have been recognized in research, with framing effect being one of the well-known and explored ones.

## 2.2 The framing effect

During the decision-making process, the individual makes a choice based on their assessment and evaluation regarding a particular behaviour or goal. While the history of framing dates back to the study of rhetoric, it has been more recently theoretically

approached in communication theory by Goffman (1974) and, more importantly, Tversky & Kahneman (1981), who paved the way for the systematic research on the framing effects, demonstrating the relative effectiveness of presenting options that are logically equivalent in a different way, using different words or phrases.

The framing effect can be described as the result of varying choices made in response to two statements about the same matter that are logically comparable or equal. The main idea is that messages can be crafted in a way that either emphasizes the benefits of following through with something in terms of gains in the positive frame or highlight the disadvantages of failing to do so in the negative frame, both framed statement leading to a different decision. We can therefore define message framing as a strategy used in communication, which seeks to impact judgements, attitudes and behaviours, through either positive or negative frames, where for example buying a product can be framed as a gain of benefits or incurrance of consequences from not buying it.

The influence of the framing effect has been researched in many contexts, including health choices (Krishnamurthy et al., 2001), managerial decisions (Fuenzalida et al., 2020), political communication (Matthes, 2010) and marketing (Chang et al. 2015; Chang, 2008). The result of studies on message framing have been mixed; some indicating it's the positive frames that are more persuasive and in promoting consumer's attitude and purchase intention, others showing that negative frames are more persuasive due to loss aversion. For example, results showed that subjects preferred positive frames over negative frames in case of purchasing sunscreen (Detweiler et al., 1999) and toothpaste (Burböck et al., 2019). while Borin et al. (2011) discovered that products featuring positive environmental messages were perceived better than those with the negative message. Orth et al. (2005) came to a similar conclusion when studying framing of apples and bottled water across different cultures. On the other hand, Moon et al. (2016) found that a sustainable product was more likely to be adopted when the negative consequences were highlighted. On a similar note, Shan et al. (2020) found that the negatively framed organic food enhanced the persuasion of the advertisement regarding the attitudes and purchase intentions. However, the general opinion is that the gain frame tends to be more persuasive when it comes to prevention behaviours and has a bigger effect in the case of a suggested behaviour that is considered safe, whereas the loss frame is more effective when the objective is to change risky behaviours (Rothman et al. 2006).

### 2.2.1 Typology of framing

According to Keren (2011), the definition of framing can be divided into a broad and a more restrictive characterization. The loose definition entails formulating a message in different linguistic descriptions, ensuring the ambiguousness of the core information. This means that with different frames that convey similar information, the meaning of the story that is written evolves, resulting in different perceptions of the same problem. This type of framing can be achieved by accentuating different elements, but not changing the core message. Emphasizing different aspects may thus carry some additional information, resulting in different interpretations.

In the case of the restrictive characterization, the exact same message is re-described in a way that makes them logically equivalent. Such example is formulating the message from the Asian disease problem either as "200 out of 600 people will be saved" or "400 out of 600 people will die" is seen as equivalent. Following this type of characterization, the different

interpretation of frames comes as a result of them representing the same scene from different perspectives and reference points.

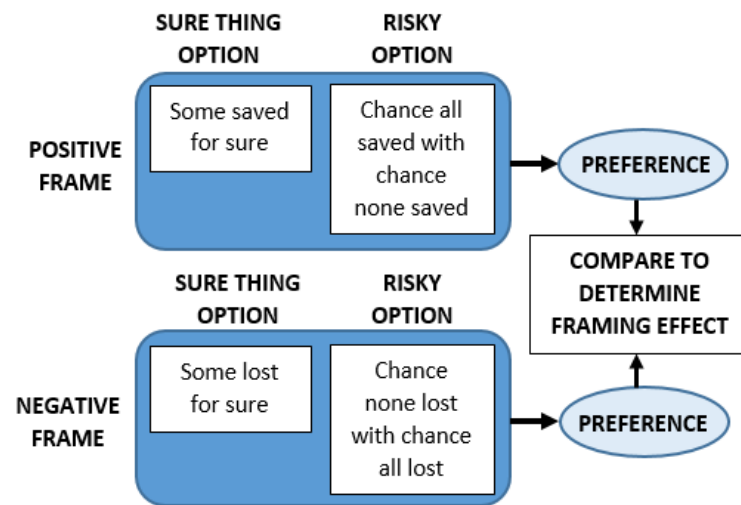
The other more common and widely cited typology has been proposed by Levin et al. (1998), also referred to as the LSG framework. Their review article tackles the question why the probability of a specific behaviour is at times linked to positive framing, at other times to negative framing, and why in some instances there is no difference. In fact, they suggest that the inconsistency might have to do with the object that is being framed. They claim that based on the different underlying processes, three types of framing can be defined, also referred to as valence framing: risky choice, goal and attribute framing.

#### *2.2.1.1 Risky choice framing*

This model of framing is based on Tversky and Kahneman's 1981 study of the "Asian disease problem", where the subjects were given a choice between a risky and riskless option, described in a positive term (lives saved) or in a negative term (lives lost). Based on the results of the experiment, the authors concluded that people tend to choose the sure thing and be risk averse when presented with a choice including a gain. In contrast, the preference for risk aversion flips in the loss situation, as people prefer the risky option. The researchers thus found a "choice reversal", explained by Tversky and Kahneman as prospect theory, showing how the discrete choices between the options depended on the way the options were described. Most of the individuals who were presented with the positively framed version of the problem chose the certain outcome, while the majority chose the risky option when the problem was framed in a negative way. This paradigm is thus applied by presenting a hypothetical scenario with two options or prospects; one being the sure thing prospect and the other being an all-or-none risky prospect. As pictured in Figure 3, both are then presented in a positive frame and a negative frame, describing the results of both options in terms of either gains or losses.

Numerous studies have applied this type of framing, some employing minor variations to the original Asian disease problem (substituting "not saved" for "die"), whereas others have applied it to new domains such as problem domain (risk of losing money or property) and subject characteristics (high school students to executives). While instances of no observable effect exist, in situations where an effect is present, there is a noticeable choice reversal. This manifests as a reduced willingness to opt for a risky choice when the options are positively framed, as opposed to when they are negatively framed. Nevertheless, when considering the broader context, the framing of risky choices consistently reveals a pattern where individuals are more inclined to take risks when the emphasis is on avoiding losses, as opposed to pursuing gains (Levin et al., 1998).

Figure 3: The Risky choice framing model



Source: Adapted from Levin et al. (1998)

### 2.2.1.2 Attribute framing

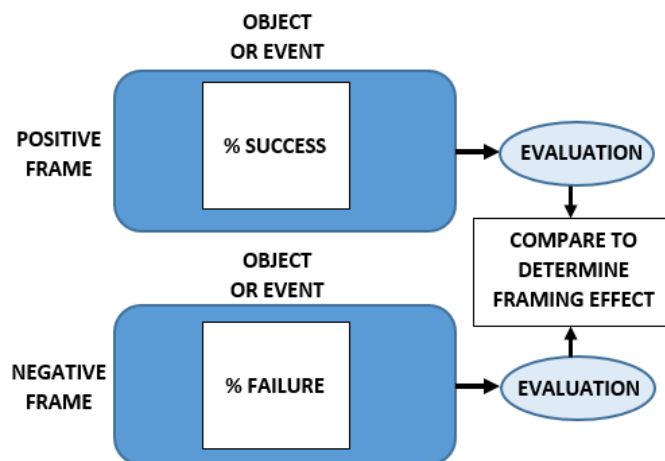
Attribute framing model, pictured in Figure 4, is considered the elementary form of framing, as only one attribute of an object or situation is subject to the framing manipulation, allowing a very straightforward testing of the influence of positive and negative frames. This type of framing can be accomplished by emphasizing favourable versus unfavourable characteristics (percent lean versus percent fat content in a product), presence versus absence of a desirable attribute (percentage of satisfied customers versus percentage of dissatisfied customers) or absence versus presence of an undesirable attribute (percentage of patients having side effects vs percentage of patients having no side effects) (Putrevu, 2014). In contrast to risky choice framing, attribute framing doesn't entail the manipulation of risk, and the task goal doesn't involve choosing between two independent response options. Instead, it revolves around assessing the favourability of accepting a particular object or event, such as rating a program on a scale from bad to good (Piñon & Gambará, 2005). In this context, the evaluation is influenced by the framing of characteristics rather than the outcome of a risky choice. Attribute framing was first researched by Levin and Gaeth (1988), who introduced a more consumer-oriented approach to framing by incorporating direct product experience. In the study, they examined the evaluation of consumer good in the case of positively or negatively phrased attribute levels. The subjects made evaluations of a hypothetical purchase of beef, which was described as “75% lean” or “25% fat”, on several scales. The results showed that the sample that was positively labelled (75% lean) was rated as better tasting, less greasy and being of better quality, compared to the sample labelled in a negative light. This type of framing has been used in various contexts, such as medical treatments (Levin et al. 1988) or job placement programs (Davis & Bobko, 1986) with the most common finding being that positively described alternatives are rated as the more favourable ones. This fits especially for studies of medical treatments; people are more likely to consent to the procedure when the procedure is described in terms of survival rates instead of mortality rates (Wilson et al., 1987). Another important thing to consider is that in the case of attribute framing, risk perception is usually not considered. However, it can still be applied in studies

in the context of gambling, where the probability of winning is likely to be evaluated as more favourable compared to probability of losing.

It is crucial to acknowledge that in certain instances, the impact of attribute framing effects can be alleviated. This is particularly relevant in areas where there is a strong pre-existing attitude, subjects are highly personally involved (such as self-estimation of performance), or when dealing with extremes (for instance, evaluating topics with substantial missing attributes). In these scenarios, the framed information often carries minimal or no weight in the judgment process.

Levin and Gaeth propose that the preference for a more favourable response to positive framing is rooted in cognitive processing. Positive framing activates positive associations in memory, whereas negative frames cause negative associations, which affect the persuasion and evaluation. Another explanation is that priming is involved in the process, as it has been suggested that positive priming sets an “evaluative tone”, resulting in better evaluation scores. In this context, the framed stimulus serves as a prime, influencing the affective valence structures retrieved from memory, indicating whether stimulus is perceived as good or bad. (Krishnamurthy et al., 2001).

*Figure 4: The Attribute framing model*



*Source: Adapted from Levin et al. (1998)*

### 2.2.1.3 Goal framing

The third type of framing can be referred to as goal framing, which focuses on how presence or absence of behaviours relates to achievement or non-achievement of objectives. In this case, the frame manipulation is designed to enhance the evaluation of an issue, where the said issue is framed so that it focuses on its capacity to offer a benefit or to prevent a loss. While both conditions promote the same act, the positive frame stresses obtaining a positive consequence or a gain, whereas the negative frame highlights the avoidance of negative consequence or a loss. The main objective of this type of framing is therefore to find out which frame is more persuasive on achieving the same result (Levin et al., 1998). This type of framing does not focus on attributes of the object itself, but rather emphasizes the way object-related behaviours impact the goal satisfaction. Another difference from attribute framing is that both frames focus on the same objective, compared to attribute framing where

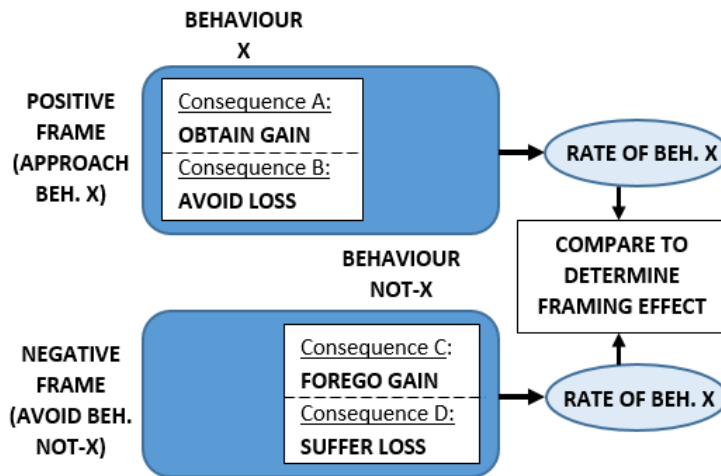
frames can highlight different aspects of an object - such as lean versus fat (Krishnamurthy et al., 2001).

Rothman & Salovey (1997) provided such an example by exploring the relation between getting a mammogram and early detection of breast cancer. They showed that women were more apt to obtain a mammography when presented with a video that emphasized the risks of not obtaining mammography than when presented with information stressing the positive consequences of mammography. A similar pattern is followed in Meyerowitz and Chaiken's 1987 study examining breast self-examination (hereinafter: BSE), where the positive frame used was "Women who *do* BSE have *an increased* chance of finding a tumour in the early stages", where the negative complement was "Women who *do not* do BSE have *a decreased* chance of finding a tumour in the early stages". This shows how different the manipulation is compared to attribute framing. In that case the BSE would be portrayed as either relatively "good" or relatively "bad" whereas in goal framing, both frames assume that BSE has beneficial consequences. In the advanced goal-framing model, framing the consequence of the advocated behaviour in terms of obtaining a gain and framing its complement of not doing the behaviour in terms of suffering a loss - A-D terminology combination (i.e. gain vs. loss) is considered the pure cross-complemented goal framing and is suggested to be the most effective as it offers the most pronounced contrast. However, alternate forms of cross-complemented framing pairs A-C, B-C and B-D can be used (shown in Figure 5). For instance, the behaviour of sleeping can be depicted through a straightforward negation, such as "not sleeping," or by presenting an alternative behaviour, like "staying awake." Nevertheless, opting for these formulations may lead to a less effective goal framing effect, as they provide less extreme contrasts of valence.

A common finding in literature is that when goal framing is applied, the negative frames have a bigger effect than positive frames. However, the findings are not completely robust; LSG cite studies where negative frames are effective in contexts such as self-examination and mammography screening, however studies on treatment of breast cancer (Siminoff & Fetting, 1989) and follow ups for pap-smear tests (Lauver & Rubin, 1990) have failed to find such effect. Moreover, some newer studies outside of the healthcare domain, such as the ones by Borin et al. (2011) and Burböck et al. (2019) showed that exact opposite - a positive frame being more effective compared to the negative one.

In general, the principal mechanism underlying valence effect and why negative goal frames work better than positive one is thought to be motivation, as people are more driven to evade a loss than to earn a gain of equal magnitude. Other explanations are that people are simply hardwired to undertake potential losses and suggest other cognitive differences in encoding positive versus negative information, but the key ingredient is thought to be motivation (Krishnamurthy et al., 2001).

Figure 5: The Goal framing model



Source: Adapted from Levin et al. (1998)

### 2.2.2 Theoretical interpretations of the framing effect

Authors acknowledge that framing plays a crucial role in shaping a context with cognitive and motivational implications, influencing the categorization of information as positive or negative. Various theories have emerged to try explain the framing effect, categorically falling into formal, cognitive, and motivational perspectives. While cognitive and motivational models may lack strong empirical support, they are frequently considered to offer a more psychologically oriented understanding of the mechanisms underlying formal models.

Prospect theory and Fuzzy-trace theory are considered as being the two important yet contrasting theories within the framing effect. Prospect theory, which fits into the formal theory category, proposes a formal evaluation model that consists of probabilities and outcomes and is considered to represent the traditional approach (Kahneman & Tversky, 1979). Fuzzy-trace theory, which is considered a cognitive theory, focuses on the cognitive model, claiming that information is being simplified by the process of thinking (Reyna & Brainerd, 1995). Both theories can be translated to the Asian disease problem, as shown in Table 1. Despite the theories having diametrically opposed assumptions, both of the models predict the identical results.

Similarly to the Prospect theory's premise that losses appear larger than gains that are equivalent, motivational theories claim that emotions, which result from losses, are greater than the emotions evoked by gains. Motivational theories try to explain that the effect is the outcome influenced by individual's fears and desires. Moreover, they propose that the feelings of displeasure are valued more strongly than feelings of pleasure, with this disparity increasing in proportion with the amount of gains or losses that are involved in proposed decision (Kühberger & Tanner, 2009).



*Table 1: Transformation of the Asian disease problem as proposed by Prospect theory and by Fuzzy-trace theory*

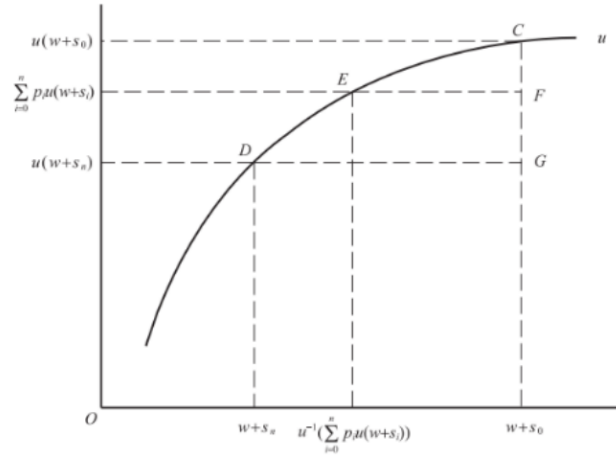
	<b>Positive frame</b>	<b>Negative frame</b>
Sure option	If program A is adopted, 200 people will be saved.	If program C is adopted, 400 people will die.
Risky option	If problem B is adopted, there is a 1/3 probability that 600 will be saved and 2/3 probability that no people will be saved.	If program D is adopted, there is a 1/3 probability that nobody will die, and 2/3 probability that 600 people will die.
<b>Prospect theory</b>		
Sure option	$v(+200)$	$v(-400)$
Risky option	$1/3 * v(+600) + 2/3 * v(0) = 1/3 * v(+600)$	$1/3 * v(0) + 2/3 * v(-600) = 2/3 * v(-600)$
Evaluation	$v(+200) > 1/3 * v(+600)$	$V(-400) < 2/3 * v(-600)$
	<b>Positive frame</b>	<b>Negative frame</b>
<b>Fuzzy-trace theory</b>		
Sure option	Some people will be saved.	Some people will die.
Risky option	Some people will be saved or no one will be saved.	Some people will die or no one will die.
Evaluation	Some people saved > (some saved or no one saved)	Some people dying < (some dying or no one dying)

*Source: Adapted from Kühberger & Tanner (2009)*

### 2.2.2.1 Prospect theory

Prospect theory, also referred to as the loss-aversion theory, is considered the most renowned and widely utilized theory in the formal model. This theory aims to clarify the framing effect and explain why outcomes can be influenced based on the way information is framed, even if the messages that are framed are essentially the same. Originally developed by Kahneman and Tversky (1979), the approach formed a strong foundation for understanding a variety of phenomena and has led to numerous insights into decision-making behaviour. It is essentially the critique of expected utility theory, which describes the decision-making without knowing the outcomes and estimates how likely is the utility of an action in the case of an uncertain outcome. It suggests that the rational choice is the one that yields the greatest expected utility - the weighted average of all possible outcomes under certain circumstance, which are weighted by the likelihood that a particular situation will occur. The decision also depends on the risk aversion of an individual, which is equal the concave part of the function. (shown in Figure 6).

Figure 6: Expected Utility function



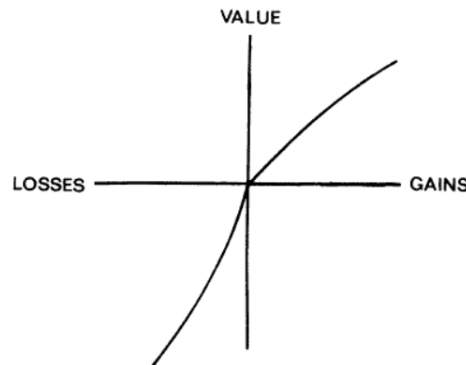
Source: Arai (2009)

Utility theory had previously been the norm for the model of rational choice and used as such in economic behaviour. However, Kahneman and Tversky propose an alternative for making decisions under risk, introducing the concept of loss aversion, which is the asymmetric form of risk aversion. This model assumes that probabilities are replaced by decision weights and that individuals value gains and losses, rather than final outcomes, in which the way a problem is framed determines whether the outcome is going to be rated as a gain or as a loss. This results in a value function depicted in Figure 7, which is S-shaped, with a reference point that acts as significant indicator for determining the outcomes, which can be either gains or losses. The function below the reference point is convex, meaning that in a negative framing condition, risk seeking is supported, as people are more likely to take a risk in order to evade a loss since losses are disliked more than equivalent gains. The function is considerably steeper, which can be explained by the fact that reaction to losses is larger than reaction to gains of the same size. In contrast, the concave part of the function is located above the reference point and represents the domain of gains, supporting the avoidance of risk when a condition is framed positively (Taherdoost & Montazeri, 2015).

When translating the prospect theory to the Asian disease problem, the theory predicts the framing effects as follows: In the positive framing condition, the reference point allows the disease to take 600 lives. Options A and B are thus coded as gains, with the sure option being  $v(+200)$  and the risky one  $(1/3 * v(+600) + 2/3 * v(0))$ . Since  $2/3 * v(0)=0$ , one must choose either  $v(+200)$  or  $1/3 * v(+600)$ . And since in the domain of gains, the value function is concave, individuals are inclined to favour the certain option:  $v(+200)$ . In the negative frame, the reference point is set at no one dying, and relative to this reference point, the results of the two alternatives C and D are viewed as losses; the sure option being  $v(-400)$  and the risky one being  $(2/3 * v(-600) + 1/3 * v(0))$ . Since  $1/3 * v(0)=0$ , the choice stands between  $v(-400)$  and  $2/3 * v(-600)$ , resulting in people choosing the risky option  $2/3 * v(-600)$ , as the value function of loss is convex. We can see that the predictions are based solely on the transformations of the non-zero complements, as the zero complements are entirely irrelevant for the prediction of preferences since they add no value to the overall utility (Kühberger & Tanner, 2009). Both functions present diminishing sensitivity, meaning that for example, the difference between \$10 and \$20 is seen as bigger than \$1000 and \$1010. Given an option presented in two ways, with both offering the same outcome, the authors

propose that the subject will opt for the option that offers perceived gains, since loss has a bigger emotional impact on an individual than do gains in the same amount (Taherdoost & Montazeri, 2015).

*Figure 7: Prospect theory function*



*Source: Kahneman & Tversky (1979)*

#### *2.2.2.2 Fuzzy trace theory*

Fuzzy-trace theory (hereinafter: FTT), presented by Reyna & Brainerd (1991) is the most acknowledged theory in cognitive models, which aims to investigate how choices differ under risky circumstances. Its central claim is that two kinds of stimulus representations are encoded simultaneously, initially into working memory and later on into long-term memory. The first type are precise verbatim representations which include exact words, numbers or images that are included in the stimulus and usually become rapidly inaccessible. The second type is gist-like representations, which include the bottom-line, emotional meaning of the stimulus. It suggests that the framing effect is the result of mechanisms reducing cognitive demands by simplifying the information and that reasoning does not operate on exact detail but rather on simple gist. Fuzzy trace theorists suggest that numbers like '100' in the case of the sure option leads to several mental representations, one extreme being the verbatim one, such as 'exactly 100' and the other extreme the gist-like representation, for example 'some'. According to this theory, individuals will deploy the gist-like versions wherever possible - using 'some' instead of any other number (Blalock & Reyna, 2016). FTT can be used on the example of the Asian disease problem, where the positively framed option A '200 people will be saved' is replaced with 'some people will be saved' and negatively framed option B '1/3 probability that 600 people will be saved and 2/3 probability that no people will be saved' is replaced with 'some people will be saved or no one will be saved'. In this case, individuals just have to find out which of the alternatives will lead to more lives saved and the choice is centred between 'some will be saved' and 'no one will be saved' and because saving some people is better than none, the sure option is chosen, with the results being reversed in the case of the negative frame. Compared to prospect theory, the zero complement is pivotal as it facilitates contrast (some versus none). On the other hand, the contrast between the non-zero complements (some versus some) is not informative (Kühberger & Tanner, 2009). Therefore, under FTT, people will prefer the risk-averse option and choose the definite save to saving some lives in the positively framed program and risk-seeking option in the negatively framed program (Taherdoost & Montazeri, 2015). Furthermore, according to Reyna and Brainers (1995), the substitution of numbers with

vague phrases in the Asian disease problem did not eliminate the framing effect. On the contrary, the effects were more pronounced when numerical information was absent. Hence, the theory posits that numerical information unnecessary and that it masks the effect instead of amplifying it. This, of course, is not applicable to some problems, such as deciding whether it is better to have \$100 or \$200 and then comparing 'some dollars' with 'some dollars'. In this scenario, the use of more precise representations are required, with the verbatim 'exactly' only ever used as the last option (Reyna & Renck 2020)

#### *2.2.2.3 Motivation*

Authors agree that the framing phenomena cannot be understood adequately within purely formal models, but require additional cognitive and motivational constructs. The latter propose that the framing effect stems from individuals' fears, wishes and other hedonic forces.

First such theory emerged by applying the security-potential/aspiration theory to framing. This theory consists of two factors, first being the attention that a person pays to the security or/and potential also called the security-potential factor. This means that in a framing situation, those that seek potential approach the best outcomes, while those that seek security tend to avoid the worst outcomes. The second factor, which is more influenced by the situation, is the aspiration level, which is explained by the hopes and needs of the individual. When exposed to situations involving gains, both factors exhibit a preference for risk avoidance. However, in the context of losses, the attitude towards risk becomes inconsistent as security prefers the alternative that is certain, even though this alternative is not acceptable as it tends to be below the aspirational level (Schneider, 1992).

The main concept of the second theory is self-belief. Self-discrepancy theory explains that individuals can be explained by the ideal self (one's self-concept, actual self or their perceptions of ideals, hopes and dreams) and ought self (one's representations of beliefs about duties and responsibilities). When individuals aim to self-regulate in alignment with their ideal self, their focus tends to shift towards optimizing positive outcomes and minimizing their absence. Conversely, when self-regulating in accordance with the ought self, the orientation is towards negative outcomes. In this case, the emphasis lies in maximizing the absence of negative outcomes or minimizing the presence of such undesirable results. Simply put, this theory predicts individual differences when it comes to preferences of domains: avoiding risk for gains in case of ideal self and risk seeking for losses in case of ought-self (Krishnamurthy & Kumar, 2002).

#### *2.2.3 Valance framing in advertising*

Framing has been used in various fields to investigate human choice behaviour, therefore it comes as no surprise that this effect has been used as a tool to influence decision makers in advertising as well. Research shows that more consumers are persuaded and that there is an increase of sales when the message is framed appropriately. Within the positive frames, words like »get«, »now«, »save« (time, money, etc.) are often used, whereas »avoid«, »don't miss out« and »stop wasting« (time, money, etc.) are used in the negative frame.

Many of consumer durables are associated with some sort of potential loss in form of a risk, let it be financial, functional or performance risk. At the same time, consumers are purchasing for the enjoyable and transformational benefits. Therefore, it is in the advertiser's

hands to decide how to frame these purchase decisions and to exploit the tendency of people to respond differently to a piece of information that is inherently the same, but depicted in either a positive or a negative way. Marketers can thus see a different response rate based on how a certain feature and statistic is advertised.

The three types of framing can also be referred to as the valence framing types, where information is framed in a positive or a negative light. When examining effectiveness of framed advertising messages, goal framing and attribute framing are the two types most often deployed. For example, Putrevu (2014) examined the influence of attribute framing by advertising a credit card and an airline. The stimulus for both advertisements included positive and negative appeals, which read like arguments, presenting a 80% customer satisfaction in the positive frame and a 20% customer dissatisfaction rate in the negative frame. The overall result showed that the positive frame caused higher intent to purchase and better attitude. Wu and Cheng (2011) similarly used attribute framing on an electronic translator, finding that the positive framing condition caused a higher intent to buy the product than the negative frame.

In the scope of goal framing, it had been previously assumed that negative outcomes have a greater impact on the consumers. And even though businesses usually use the positive, »save« frame, loss aversion as well as other research on goal framing propose that individuals prefer a deal that is presented as loss. Gamliel and Herstein (2011) confirmed this prediction, where presenting a promotion as »lose if you don't purchase« caused consumers to be more willing to purchase a product compared to presenting it as »save if you purchase«. However, Segev et al. (2015) looked at persuasiveness of goal-framed messages in terms of green advertisements and found that gain-framed ones were more effective in eliciting favourable response towards the brand and the advertisement, as well as heightened the purchase intent. Their findings are explained by prior research which argues that gain frames are preferred and work better in preventative situations.

Scholars suggest that in advertising outside of laboratory research, positive frames are mostly used and suggest that positive frames present a safer option and that negative frames are avoided due to concerns about potential negative consequences from using negative appeals. Even though previous research suggested that adverts containing pure goal framing are the predominant type, Pervan & Vocino (2008), found that attribute framing is the most often used strategy among magazine advertisers. Furthermore, their findings indicate a prevalence of advertisements employing a combination of both positive and negative framing. However overall, positive frames were prevalent in all types of framing, including the combined approach. This is in line with LSG framework in case of attribute framing but not for goal framing. In fact, only a single of the 137 goal framed adverts used the negative frame. Here, once again, the actual advertising practice shows different results compared to the recommendations of framing research.

This same research also shows insight on the operationalization of goal framing, investigating whether advertisements used simple negations (obtain gain vs forego gain or avoid loss vs. suffer loss) or polarized contrasts of alternative terminology (obtain gain vs. suffer loss). The results support alternative terminology of obtaining gains rather than avoiding loss in both pure and combined goal framing. Interestingly, the only negatively framed advertisement used a less extreme contrast, the simple negation in communicating the frame, indicating that advertisers might not want to appear too negative.

#### 2.2.4 Framing and consumer decision making

Message framing is shown to influence consumer's attitudes and intentions to make a purchase (Zhu, 2014). A marketer should thus consider the importance of choosing to present a product to a customer in terms of possible gains that can be obtained when using it, or losses suffered from not using it. Even though the presentation of the message in communication is paramount, prior research provides conflicting and inconclusive predictions regarding the persuasiveness of frames. In order to comprehend the effect message framing has on consumer behaviour, research began incorporating and exploring the role of variables that might have a moderating effect.

Message framing is often employed in brand communication, encompassing three primary dimensions: attitude towards the advertisement, attitude towards the product and purchase intention. The objective of brand communication is to influence consumer behaviour and enhance persuasiveness. However, the effectiveness of either a positive or negative frame depends on the nature of the framed message, the specific conditions, and the target audience. Literature indicates that there are three main characteristics that form the attitudes and purchase intentions when presented with a framed advertisement: self-construal, consumer involvement and product knowledge.

##### *Self-construal*

The first characteristic, self-construal, pertains to how individuals perceive and define themselves in relation to others. Self-construal can be categorized as either independent or interdependent. Independent self-construal involves individuals distinguishing themselves from others based on unique attributes and characteristics that are unique compared to other individuals and social context. Interdependent self-construal on the other hand refers to the characteristics that are not unique and do not distinguish and separate the individual from another. Research indicates that self-construal influences the inclination towards promotion or prevention focus, subsequently impacting consumer decision-making processes. (Tsai, 2007).

Consumer have different responses to framed messages based on whether they are prevention or promotion focused, which can be explained by the regulatory fit. Tendency towards promotion focus stems from the independent self-construal individuals who are more receptive to positive consequences and prompts consumers to use the positive frame, whereas interdependent consumers are more receptive to negative frames.

Rothman and Salovey (1997) proposed that the effectiveness of frame depends on the perceived degree of risk. They divided actions into low and high risk; where behaviours that have a preventative function are considered low risk, since the only risk stems from not engaging in the action, one such example being physical activity. On the other hand, the behaviours that serve a detection function, such as mammography are high risk, due to the possibility of a serious illness being discovered. Within this framework, they suggest that in the case of prevention behaviours, which typically carry a minimal risk, gain frames are more effective whereas in the case of detection behaviours, which carry some degree of risk, messages framed as a loss are more effective. Rothman et al. (1999) showed this on a laboratory experiment, where they framed two types of mouthwash, one deemed as having a preventative function and the other being able of detecting build-up of plaque. As predicted, the highest intention to buy the item was when the preventative mouthwash highlighted the pros of using it and when the detection one emphasized the costs of not using it. Other meta-analyses that examined these behaviours showed support for these claims.

The review of the detection behaviours came to different conclusions; the loss-framed messages in breast detection behaviour presented a significant but weak advantage compared to gain framed ones for the promotion of attitudes, intention and behaviours (O’Keefe & Jensen, 2009).

O’Keefe’s and Jensen’s (2007) meta-analysis of prevention behaviours indicated that gain messages had a significant but weak advantage over messages frames as a loss on attitudes, intentions and behaviours in studies promoting preventative behaviours such as dental hygiene behaviours and to lesser extent safe sex behaviours and exercise. Similar effect was found in another meta-analysis but in other domains such as smoking cessation, physical activity and skin cancer prevention (Gallagher & Updegraff, 2012). Similarly, Kim (2006) and Liu and Cheng (2018) found that positively framed ads, compared to negatively framed ones, were more persuasive for promotion oriented individuals. Moreover, Liu and Cheng found that positive frames were more effective in the case of a utilitarian product. On the other hand, negatively framed messages seemed to work better for the hedonic product. Detweiler et al. (1999) examined the effect of sunscreen advertising and compared the differences between four differently framed messages in persuading beach-goers to use sunscreen, which can be considered a utilitarian, prevention product. As predicted, the people that read the positively framed messages were significantly more likely to ask for sunscreen and use it.

#### *Consumer characteristics and involvement*

The second characteristic is the consumer's psychological schemas, which impact the evaluation of a specific product and encompass various concepts, beliefs, attitudes, and lifestyles. These schemas aid consumers in assessing the relevance of a product to their needs and then applying these criteria to evaluate the potential risks associated with using or not using a particular product. The personal relevance and perceived risk one feels towards a product is defined as consumer involvement. It is related to a personal interest in a product, its hedonistic or symbolic value, as well as the risk probability (Tsai, 2007).

Consumer involvement is regarded as a motivational force and can be conceptualized along two extremes: high and low involvement. In accordance with prospect theory, personal relevance and perceived risk serve as moderating factors in how individuals calculate gains and certainty of things, where consumers that have low (high) personal relevance and low (high) perceived risk, pay more attention to gains (losses) and are explained by being of low (high) involvement. Issue involvement thus plays a big role in framing preference and persuasion, implying that when issue involvement is high (meaning an individual can identify with the message, or already owns the product), a higher weight is assigned to the negative information and is seen as more persuasive. However, in situations of low involvement, such as encountering an advertisement in mass media, framing can have the opposite impact. In such cases, consumers may respond more favourably to the positive framing condition (Maheswaran & Meyers-Levy, 1990). This was proven by Ganzach and Karshai (1995) who conducted an experiment where customers who have not used a credit card for a period of three months received a message either highlighting the benefits of using the card or losses of not using it. Since the target audience already owned the card, it can be assumed that the issue involvement is high. The results showed that the loss-framed message of an advertisement promoting the potential losses had a stronger impact, were more persuasive and had a better recall than the gain framed message. In fact, the number of users who began using the credit card after they had been exposed to the loss message was double than those who saw the positive message. Even though Ganzach and Karshai show the superiority of the negatively framed advertising messages, Ganzach et al. (1997) argue that

the level of involvement varies based on the setting of the experiment. By replicating the experiment outside of the laboratory and in various natural environments such as work, home or library, they show the framing effect in a laboratory setting was opposite to the effect of framing in the natural environment. They propose that involvement is low in an artificial environment, which results in positive frames being more persuasive, whereas in the natural environment, the involvement is higher, thus making negative frames more effective.

Two main types of risk have been described in research. The first is perceived effectiveness, which is defined by the degree to which a prevention behaviour is successful in avoiding the unwanted result. Second definition is perceived susceptibility, which examines how susceptible an individual is to an unwanted result. If the perceived effectiveness is low (for example 60% effectiveness of a vaccine, compared to a 90% effectiveness), it tends to heighten risk perception and result in a loss frame preference. At the same time, studies have shown that higher perceived susceptibility also makes loss-framed messages more effective as it is associated with higher perceived risk. Therefore, perception of low effectiveness and high susceptibility, which are both linked with high risk, might result in a choice of the negatively framed option (Hwang et al., 2011).

Regarding choice behaviours, Meyers-Levy & Maheswaran (2004) propose that the persuasiveness of advertised messages can differ based on the processing (systematic or heuristic) that individuals employ and are invoked by risky implications and personal relevance. For example, a systematic processing occurs if a person finds high relevance of a message issue, resulting in a greater persuasion of negative messages. Contrastingly, if someone relies their judgements on heuristic processing, which happens when the message is not relevant to the individual, positive frames are said to be more persuasive.

Other consumer characteristics such as gender and education level can also mediate the framing effect. Braun et al. (1997) presented individuals with a chocolate bar, expressed as 80% fat-free and 20% fat and found that salience of the attribute, which pertains to the phenomenon when someone's attention is focused to a different part of the environment and is differently meaningful among the respondents. In fact, they found that females noticed the attributes more compared to males and that it affected the feelings towards the product: females seemed to associate good and bad emotions with the chocolate bar, whereas this was not observed among males. Smith (1996) explored framing and consumer's education and found that the negatively framed messages had a bigger effect on the less educated consumers, whereas the positive messages had a bigger influence on more educated consumers. Moreover, he suggests that product characteristics could be associated with the advertising appeal and that the type of product might affect message framing- with positive frames being preferred on purchase decisions of transformational products, which convey meaningful information and objective facts.

### *Product knowledge*

Another crucial variable that affects how consumers perceive marketing messages is product knowledge, which consists of either the experience or the information a consumer has about a product. There are two dimensions to the product knowledge: behavioural knowledge, which refers to the process of choosing the product, purchasing it, possessing and using it, and mental knowledge, which consists of the mental processes that are related when searching and using the product.

Overall, scholars point to the consequentialist assumption of a cognitive process when trying to explain the framing effect, meaning that people make decisions after using heuristic systems to evaluate the risks and rewards linked with potential choices and make intuitive



judgements. The consumers therefore do not rely on the optimal solutions, but rather use heuristic strategies and information processing, which are based on their knowledge about a certain product, the message itself and the scope of their information processing. Level of knowledge about a product can affect the brand communication and consumer behaviour. Those that are more knowledgeable tend to process the information more effectively and are thus less likely to be affected by framing compared to those who don't know as much about a product (Shan et al., 2020). The explanation for this lies in the information integration effect, which interprets that knowledgeable consumers have attained more pieces of information, so that new pieces of information do not carry any substantial weight. Another way of explaining it is the expert/novice theory, where experts are less responsive to extrinsic cues created by message framing and have more cognitive resources to base their choices on intrinsic choices, whereas novices lack the cognitive resources and choose based on extrinsic cues.

In terms of previous experience, Levin and Gaeth (1988) show that trying or experiencing the product that is framed, weakens the impact of framing. For example, evaluation of beef is unlikely to be changed by a positive frame if the beef is initially rated as tasting terrible. In terms of existing knowledge, Shan et al. (2020) as well as Wu and Cheng (2011) found that consumers who have limited knowledge about a product were more likely to be affected by framing. Chang (2007) came to somewhat conflicting results in his study on print advertisements of healthcare products; the finding suggests that products that the consumers are familiar with and fall in the prevention category, should be promoted by applying gain framed messages, whereas products that fall in the detection category should be promoted by using loss frames. However, in the case of new products, positive messages are more persuasive for both types of products.

### **2.3 Consumption values**

Within retailing, the consumer's decisions to make a purchase are based on the value that the vendors offer; in fact, it is an important force that determines the behaviour of the buyer. The consumption value is generally a combination of two factors: the perceived benefits (the combination of physical characteristics and services related to the product) and perceived costs (such as price of purchase, cost of purchase, transportation, repairs). However, the value for the customer comes from different sources, which make up the experience as a whole, resulting in an emotional state associated with satisfaction, security, fun and pleasure (Rudawska et al., 2015).

Several models have been developed in literature to analyse and explain consumer behaviour and motivation behind shopping, one of them being the consumption values model developed by Sheth et al. (1991). This theory, including a variety of product categories, including physical and non-physical consumption products, industrial products, as well as services, explains why individuals decide to purchase and prefer a certain good or service. The authors point that consumption values are the reason for their purchase and identify five of them: conditional, social, epistemic, functional and emotional value. In fact, Batra and Ahtola (1991) suggest that there may be two fundamental reasons why consumption happens: first reason is that individuals look for affective gratification, which can be described by sensory and hedonic attributes and secondly, they seek to appreciate the functional features of a product, also described by non-sensory, utilitarian attributes. Based on this, Babin et al. (1994) later developed a more basic and dual measure to capture the experimental and instrumental outcomes and focused on utilitarian value (which may be

considered under functional value) and hedonic value (which may be considered under the emotional value). The authors describe the first type as a practical outcome, coming from a conscious effort to achieve a specific result and make things convenient and the second as a hedonic outcome that captures spontaneous responses and a choice for enjoyment. From the consumer's standpoint, the utilitarian value of a product denotes its capability to fulfil practical needs, while hedonic value pertains to the product's ability to provide pleasure. Because the shopping experiences involves stimulation of both thought and senses, the process can therefore be viewed from a standpoint of providing the customer with utilitarian (cognitive) and hedonic (affective) values.

## **2.4 Hedonic versus utilitarian products**

Several researchers have demonstrated how consumer attitudes vary depending on two components, which are claimed to affect attitudes towards different products and that consumers benefit from: hedonic and utilitarian values. In the traditional information processing buying model, the consumer is seen as highly rational decision maker and problem solver. Therefore, the research has mainly focused on the rational process and thus the utilitarian perspective; the motives for acquiring these values being reflected on the work mentality and whether the task has been accomplished and pertain to seeking convenience and variety and trying to find quality and reasonable price.

According to the bi-dimensional structure of consumer value proposed by Hirschman and Holbrook (1982), products can be divided into two categories. First are the utilitarian products which solve the consumer's problems with their with tangible features. Second are the hedonic value-based products, which consist of intangible features, pertaining to an individual's feeling and emotions (Pang et al., 2009). In a broader sense, goods with utilitarian values are considered practical, helpful, and offer functionality and effectiveness. Their consumption is primarily driven by cognitive processes and is goal-oriented, intended to fulfil functional or practical tasks. (Rudawska et al., 2015).

Hedonic values have been less studied, also because they are considered more subjective and personal. The consumption of such values reflects the pleasure and emotional aspect of shopping and the fact that consumers do not solely exhibit a rational and economic consumption behaviour, which is a result of the emotional needs of the consumer and their need for pleasurable and engaging experiences. Unlike the utilitarian value, it tends to be more individualistic, providing a framework for the analysis of behaviour that is based on emotional needs. This type of value is considered as the emotional benefit perceived by the consumer when shopping for such goods and is different from the sole achievement of satisfying the original purchase intent. Several values within hedonic shopping have been identified, such as adventure (doing something that is out of the ordinary), gratification (relaxation and improvement of a bad mood), role (purchasing to pleasure others), value (enjoyment of finding bargains), social (maintaining and enhancing relationships within a social group) and idea (keeping up with trends). Goods with the hedonic value could thus be described as fun, exciting and enjoyable; their consumption is marked by providing an sensory experience (Rudawska et al., 2015).

The utilitarian-hedonic distinction extends beyond the product level and is also applicable to attributes (Lu et al., 2016). For example, a consumer buying a new car might not only care about utilitarian characteristics such as the mileage, but also hedonic features such as interior design. Even though the consumption of many goods encompasses both dimensions, research indicates that various considerations in product evaluation allow individuals to

categorize products based on their distinctive features as either primarily utilitarian or primarily hedonic goods. The two types of goods can also be broadly compatible with two types of preferences. First are the affective preferences or the “wants”, which are likely to be subject to hedonic goods, whereas the reasoned preferences or the “should”, can be connected to utilitarian items (Dhar & Wertenbrach, 2000).

While necessities inherently have utilitarian aspects, utilitarian goods aren't always necessities. In fact, an individual's typical purchases, which include meeting basic needs for nourishment and protection, often go beyond mere essentials. This means that the two types of consumption are quite discretionary and up to an individual's judgement as the difference between the two may lie in one's degree of perception. However, the hedonic consumption is often seen as more discretionary, whereas utilitarian consumption is seen as more necessary. For instance, a laptop might be considered necessary by some and discretionary by others. (Okada, 2005).

#### 2.4.1 Hedonic versus utilitarian approach in advertising

Various other models explain the response of the consumer to an advertisement, but they can generally be classified into Cognitive Information Model, which is based on the cognitive appeals and Pure Affect model, which relies on affective and emotional appeals. Authors generally agree that for hedonic products, emotional appeals tend to be more applicable, whereas for utilitarian products, rational appeals work better (Drolet et al., 2007).

Rational appeal advertising seeks to convince consumers to purchase a product based on its superiority or better alignment with their needs. Its effectiveness is rooted in the persuasive strength of its rationale regarding product attributes. Rational appeal advertising is identified by using cues such as price, quality, function, material, time and place of purchasing. Moreover, it can illustrate the connection between price and value or incorporate elements of sales promotion. While it can help alleviate doubts and uncertainties about a product, some perspectives argue that this type of advertising is perceived as dull and not attention-grabbing, potentially diminishing its effectiveness. (Grigaliunaite & Pileliene, 2016).

Contrastingly, emotional appeal advertising is attention grabbing based on either encouraging consumer to acquire a reward or to avoid punishment. Positive emotions usually tend to be the desired result, the advertisements therefore aim to focus on emphasizing positive expectations such as prestige, trust, pride and love (Grigaliunaite & Pileliene, 2016). However, research is divided regarding the influence of both types of advertising on the consumer behaviour and the findings on rational and emotional strategies in advertisements are mixed.

On one hand, there is evidence that rational appeals result in higher effectiveness, are preferred, result in higher purchase intentions (Coulson, 1989) and have more influence on the attitude towards the advertisement (Sadeghi et al. 2015). On the other hand, some other scholars suggest a clear preference for advertising highlighting emotional appeals, yielding a better attitude towards the product but lower purchase intention than rational advertisement (Grigaliunaite & Pileliene, 2016). The contrast in findings is especially prominent in the studies of the service industry. While some studies found that rational advertising is superior to emotional appeals as it reduced the uncertainty of the purchase of services (Stafford & Day, 1995), some suggesting emotional advertising being more prevalent (Cutler & Javalgi, 1993) and effective (Pang et al., 2009).

Given the inconsistent findings on the effectiveness of rational versus emotional advertising, researchers have explored other moderators and subsequently supported the principle of matching or congruity. The most common approaches used to influence consumer behaviour in advertising can be described by the value-expressive (image) appeal and the utilitarian (functional) appeal. In the context of advertising, the strategy for presenting value-expressive products involves creating a personality for the product or the image of the user. This strategy, which is part of the transformational advertising, has been linked to several aspects of consumer behaviour, highlights the creative objective of building a generalized image of the end user of the advertised good. Conversely, the approach for utilitarian appeal in advertising, known as informational advertising, differs as this strategy highlights the sole functional product properties (Johar & Sirgy, 1991).

As the researchers started to take an interest in consumption outside of the narrow frames of pure economics, they acknowledged the pivotal role of persuasion in shaping people's perceptions of what is attractive or unattractive, good or bad or wanted or unwanted. Johar and Sirgy (1991) thus tried to explain how the two advertising appeals affect the persuasion through two processes defined as self-congruity and functional congruity.

Self-congruity, which is explained as the match between product-user image (the image of a stereotypical user of a product) and an individual's self-concept (which can be the actual, ideal, social or an ideal social self-image) (Sirgy & Su, 2000), influences the consumer attitudes when products are value-expressive or hedonic. For example, a designer purse might have the product-user image of a youthful and fashionable individual and the potential consumers might think of themselves in these terms. This means that there is a congruence present and the higher the congruence, the higher is the likelihood of persuasion and enhanced the positive attitude towards the product. In simple terms, persuasion in this case appears when hedonic attributes match the individual image of self.

Functional congruity, characterized by the alignment between the functional attributes of a product and an individual's desired functional characteristics, is closely associated with utilitarian products. For example, a consumer might evaluate a specific brand of detergent based on a set of utilitarian attributes such as removing stains, preserving colours and smelling good. Beside these actual characteristics, consumers may also hold ideal standards to shape their beliefs about a brand or product. In this context, higher congruence between utilitarian beliefs and ideal beliefs leads to increased persuasion. Therefore, we can conclude that persuasion appears when there is a match between the performance of a product and the buyer's ideal criteria of the same product (Johar & Sirgy, 1991).

Research supports the claim of advertising being more effective when communicating the key consumer value depending on the product type (Pang et al., 2009). Therefore, advertising strategy can match consumer value in a way where rational (emotional) strategy is more effective with utilitarian (hedonic) value-based product and is more successful in communicating the utilitarian (hedonic) value.

However, it is needed to mention that in some advertising situations, both types of congruity can be involved and promoted. For example, in a car advertisement, the image is likely to highlight the hedonic functions and show the typical consumer, whereas the text is likely to illustrate the utilitarian attributes. On the other hand, products that yield low congruity on both sides (product that are usually low on utilitarianism and hedonism) will call for neither for the value expressive or utilitarian appeal, in fact, other strategies should be applied, such as price appeal (Johar & Sirgy, 1991).

#### 2.4.2 Product type and consumer decision making

Literature suggests a distinction between the motives that underlie consumption decisions. The motives for utilitarian consumption include convenience, quality, availability of information, selection and customized product or service. The motives for hedonic consumption generally stem from five motives, which are value expression, exploration, acquiring ideas, obtaining status and entertainment. Despite this distinction, both aspects are bipolar; utilitarian aspect includes both rationality and irrationality and hedonic aspect includes pleasant and unpleasant feelings. Furthermore, the motives are also central to determining how an item is perceived in the first place, as one may purchase a phone to access help in case of emergency, while someone else might buy it to take pictures. Therefore, there are two approaches to consider when exploring consumption and the relationship between products with utilitarian and hedonic values. First approach suggests that both attributes are multidimensional concepts, where a product can have both attributes (Shao & Li, 2021). For example, Basaran & Büyükyılmaz (2015), show that consumers visit fast-casual restaurants for not only feeding but also the enjoyment from the experience. The second approach focuses on the differentiation based on the dominant attribute of a product, suggesting that first the functional needs need to be fulfilled and only after that, can a consumer start considering the hedonic product (Shao & Li, 2021). Chitturi et al. (2007), documented that the hedonic product only gained importance after a certain level of the functionality that was deemed as necessary was satisfied.

There are several factors that affect the persuasiveness of a product. First are factors relation to a product, which are for example product differentiation, product life cycle, product scarcity, and product conspicuousness (social visibility). Once a product is highly differentiated from the competitor's, the consumers tend to distinguish it from other products based on their utilitarian attributes. Therefore, the higher the product differentiation, the higher probability that the consumer will experience functional congruity which in turn leads to the utilitarian appeal being more persuasive. As a brand enters the mature stage, the utilitarian benefits often become less distinctive compared to competitors. Consequently, in mature stages, hedonic appeal tends to become more persuasive. Products that are consumed publicly and are socially visible are more likely to be associated with the personal characteristics of the user. Therefore, the higher the product conspicuousness, the more persuasive the hedonic product. Another factor that makes the hedonic products more attractive is product scarcity, as it involves distinct and unique product usage, and this behaviour is attributed to the personal characteristics of the user (Johar & Sirgy, 1991).

Another explanation is the characteristics of the consumer, as they process the advertised messages mainly through the self-congruity route as they tend to notice the hedonic cues in the ad first. If there is no match between the self-image and the self-concept, they will not process the message further. But in the case of a match, they will continue to process the utilitarian cues as well. However, this process may be counteracted by the level of involvement and prior knowledge about the utilitarian features the consumers has. This means that in the case of low involvement and low prior knowledge about the functional features, the consumer will make their choice based on the self-congruity which leads to the effectiveness of the hedonic appeals. In the case when involvement and prior knowledge are high, the consumer becomes motivated and enters the process of functional congruity, resulting in a higher effectiveness of the hedonic appeals. Lastly, the concept of self-monitoring, a personality trait involving the ability to adjust behaviour to fit social situations, plays a role. High self-monitoring occurs when individuals shape their behaviour to make a favourable impression in a given situation and vice versa. Research indicates that such

individuals find hedonic more appealing, whereas the low self-monitoring consumers are more persuaded by the utilitarian products (Johar & Sirgy, 1991)

A rich body of research had addressed where hedonism and utilitarianism originate from, suggesting that one of the drivers could be the characteristics of the advertised message or the characteristics of the shopping environment, meaning that the same environment could elicit the same reaction from consumers. The more common finding, however, is that the moderators of the shopping experience are the motives and the interpersonal psychological differences between consumers. These differences play a role in either enhancing or decreasing the level of pleasure and emotional involvement one experiences when purchasing a product (Scarpi, 2020). Research mainly suggests that emotional responses are processed differently, depending on the nature of the product, arguing that emotions carry more weight in hedonic consumption, and products associated with hedonic experiences are more affect-rich, leading to stronger emotional responses. In fact, Bettiga et al. (2020) support the idea that both types of products produce emotional responses in consumers. Moreover, they propose that the differentiation between hedonic and functional product might not be in their intrinsic nature but depend on how consumers rationalize their choices. Consumers might justify their consumption based on their subjectivity and own interpretation - by recognizing the emotional values of the hedonic product and functional values of the utilitarian product.

Research has leaned towards the conclusion that employing emotional appeal is beneficial for hedonic goods but not recommended for utilitarian ones. Consumers generally prefer rational advertisements in cases of utilitarian products and emotional or affective ones for hedonic products. While there has been a common assumption that there are inherent differences in the emotions generated by the two types of products, some doubts have been shed on these claims. For example, Drolet et al. (2007) found differences in attitudes towards the ads based on age; consumers aged 65 plus preferred emotional ads, no matter the type of products, whereas those aged 18-25 favoured and had a better recollection of emotional ads for hedonic products. In the realm of online shopping, Liao et al. (2016) showed that hedonic goods led to a higher level of pleasure only in certain presentation modes but found that the product types did not lead to different levels of arousal. In contrast, Bettiga et al. (2020) found engagement only for hedonic goods, attributing it to consumer's heightened focus on the emotions as a result of interacting with hedonic products. This further proves that the distinction between the two products might lie in the rationalization of the consumption and not their inherent nature. In fact, individuals may justify their consumption of functional product by incorporating utilitarian values and recognizing emotional values in hedonic products.

Consumer choice between the two goods thus seems to be driven by whether the preference can be justified. Because the benefits of hedonic consumption are more difficult to quantify and due to evoking a sense of guilt, it is more difficult to justify spending on such goods. Justification is therefore a big aspect in consuming utilitarian goods as they are relatively necessary and their functional benefits are easier to quantify. Therefore, individuals are more likely to consume hedonic products in a situation where they can justify their choice. The presentation of the goods affects this justification; in the case of a hedonic good being presented on its own, it is easier to make a justification. Contrastingly, when both types of goods are presented together, each one undergoes evaluation and comparison to the other. In this scenario, the utilitarian item may emphasize the discretionary aspect of the hedonic one, making justification more challenging due to the contrast effect. Additionally, when faced with the need to choose between the alternatives, the justifiability of the decision is

heightened, making the more justifiable utilitarian good more attractive and vice versa (Okada, 2005). Sela et al. (2009) studied the influences of justification on option choice and confirmed that utilitarian goods are usually easier to justify; especially when presented with a large variety of goods to choose from, a consumer will tend to shift their choice from hedonic to utilitarian goods. However, this effect reverses once there are situational factors that justify reasons to indulge: finishing a task might lead to selecting a hedonic reward, because the participants have “earned” the reward. On the other hand, this same mechanism can make people prefer utilitarian options in case of situations that demand a higher available justification, also referred to as the “Hedonic dilemma”. For example, Böhm and Pfister (1996) showed how people were more likely to prefer the hedonic good - a motor scooter when receiving it as a prize on a private mail lottery compared to a public setting - a TV show.

Different marketing tools can reduce guilt and heighten justification of that make hedonic products more attractive. One such example is loyalty programs, studied by Kivetz and Simonson (2002) who showed how hedonic dimension is only preferred once the consumers have earned their right to indulge in the hedonic reward. They found that when program requirements are higher, consumers are more likely to prefer the hedonic to utilitarian rewards, reflecting the need to justify the choice of luxuries over necessities. Other researchers suggest that preferences for hedonic products occur when they are connected to charity donations, as a way to justify the hedonic consumption (Sela et al., 2009; Kivetz & Simonson 2002).

Another mechanism that can explain the consumption of different product is reference dependence and loss aversion towards hedonic attributes. Dhar and Wertenbroch (2000) examined the preference for the two types of products in an acquisition condition, where the consumer had to choose which of the two to acquire, and forfeiture condition, where the subject had to choose which of the two items to give up. Results showed that in the first case, the hedonic item was preferred. When posed to choose which item to give up, participants were significantly more likely to give up the utilitarian item, explaining that affect might influence loss aversion. For example, an individual is more likely to choose an apartment with a nice view rather than the apartment that is close to his workplace if his current apartment has both features, than in the case of his apartment having neither of the features.

Another factor is the uncertainty and range effects. Utilitarian (affect-poor) goods are preferred in times of certainty and hedonic (affect-rich) are preferred in times of uncertainty. O’Curry and Strahilevitz’s (2001) findings indicate that when the likelihood of receiving the chosen item is lower when given a selection of choices, individuals are more inclined to opt for the hedonic alternative. In terms of range effects, research shows that hedonic alternatives are evaluated based on feelings while evaluation of utilitarian alternatives is based on calculation. Thus, in the first case, consumers are more sensitive to the stimulus but pay less attention to the variations in range. In the case of calculation, however, consumers are more sensitive to the changes in range. Consumers thus tend to be less price sensitive when buying hedonic products, which can be explained by the infrequent purchase of such items or due to the fact that they are consumed for fun, therefore saving is not considered (Wakefield & Inman, 2003).

Consumption of the two types of products can also be analysed in the domain of characterizing consumption for immediate pleasure versus consumption for long-term benefits. A consumer might be faced with an internal conflict whether he should buy the healthier or less expensive product or to buy the product that he wants which is less healthy or more expensive.

Wertenbroch (1998) showed that the hedonic good is preferred to the utilitarian good when considering the immediate consequences of consumption. Therefore, the consumption of the hedonic good can be conceptualized as an impulse motivate, affective want and the utilitarian good is the more cognitively preferred option. Research thus suggests that immediately gratifying option tends to be chosen on impulse, which is only overcome if long-terms consequences are considered. This means, that when processing resources are highly available, the consequences of choice tend to be considered and have a higher influence.

However, this distinction can lead to inconsistent preferences, since something may give gratification now but maybe not in the future. This can lead to a phenomenon called hyperbolic time discounting, which causes us to plan to consume something that will benefit the utility long-term, but choose something that is bad for us because of its immediate appeal. It poses an explanation for the inconsistency in the consumption decisions. For example, Read and Van Leeuwen (1998) depicted that half of the subjects decided on a piece of fruit over a chocolate bar a week prior to consumption, but ended up choosing the chocolate bar immediately before consumption.

Moreover, preferences over the two options depend on whether the options are presented separately or evaluated together. Read et. al (1999) showed that consumers tended to be spontaneously tempted by the hedonic products, however they were more likely to prefer the utilitarian option when presented with the multiple options of both hedonic and utilitarian goods. This suggests that people are tempted by hedonic goods spontaneously and that a cognitive factor occurs once there is a joint processing of the long-term consequences. Since the short-term choices are in conflict with the long-term consequences, consumers tend to eliminate the hedonic alternative as a self-control strategy to control impulsive consumption and control long-term interests.

#### 2.4.3 Measuring hedonic and utilitarian attributes

Based on the fact that consumer attitudes have distinct hedonic and utilitarian components, several scales have been developed to measure their attributes and how they influence the consumer's attitude. Batra and Ahtola (1991) developed measurement scales based on three studies, with the intent of establishing a valid and reliable scale to measure the hedonic and utilitarian dimensions. They showed that the two dimensions of consumer attitudes are separate and measurable, concluding that the utilitarian component can be best measured with item useful/useless, wise/foolish, valuable/worthless and beneficial/harmful, whereas the hedonic attribute is best measured with happy/sad, nice/awful, pleasant/unpleasant and agreeable/disagreeable.

This scale was later criticized by Crowley et al. (1992) due its usage of specific brands and products (i.e. Pepsi, Listerine, Cadillac) in the development process of the scale. In their study, they examined the scale with regard to a broader variety of product categories instead, minimizing the possible pre-existing attitudes. The findings of their study showed that half of the product categories did not match Batra and Ahtola's scale, and that it did not entirely capture the two separate components of attitude. The items loaded in unexpected ways, with the nice/awful and wise/foolish dimensions being especially problematic, as in most cases, the former loaded on a utilitarian factor, while the latter loaded heavily on a hedonic factor. They explained these results by the brands versus product categories differentiations, suggesting that boarder categories have less distinct hedonic or utilitarian components and



that it's the product's brand advertising that can emphasize its attributes and strengthen the classification in the consumer's perception.

The scale was further developed by Voss et al. (2003) and on the bases of six studies, they established a unidimensional, reliable and valid hedonic-utilitarian scale across both types of product and brands that fall into those categories. Via an exploratory factor analysis, they found twelve pairs, each representing of the hedonic and utilitarian dimensions of product attitude. The final pairs included effective/ineffective, helpful/unhelpful, functional/not functional, necessary/unnecessary and practical/impractical for utilitarian products and fun/not fun, exciting/dull, delightful/not delightful, thrilling/not thrilling and enjoyable/unenjoyable for hedonic products.

## **2.5 Relevant research overview**

In this chapter, I will summarize all the relevant research presented in Appendix 16, as well as highlight the gap in the existing research that this thesis fills. It consists of nineteen independent studies which fit the context of this thesis, meaning that they contain stimuli in the attribute and/or goal framing conditions and research consumer behaviour by evaluating preferences for frames in attitude, quality perception and/or purchase intention dimensions. Student samples were most widely used in these researches, applying a between-subject design and having them choose and evaluate tasks presented in terms of gain or loss.

The LSG framework, which is deemed as the basis for framing research, gives clear guidelines as for which frames work better in certain framing conditions, suggesting a preference for positive frames in the case attribute framing and preference for negative frames in cases where goal framing is applied. This theory is shown to generally hold for studies on attribute framing, such as the ones by Braun et al. (1997), Burböck et al. (2019), Janiszewski et al. (2003), Levin et al. (1988), Loke et al. (1992), Putrevu (2010) and Wu and Cheng (2011); participants in these studies overall preferred positive to negative frames when measuring attitude, quality and purchase intention. As for goal framing, the findings are not as conclusive. On one hand, positive frames are shown to be preferred in studies by Borin et al. (2011), Burböck et al. (2019), Orth et al. (2005), Rothman et al. (1999) and Rothman (1993). On the other hand, some research, such as the one by Jasper et al. (2014), Meyerowitz and Chaiken (1987), Moon et al. (2016), Putrevu (2010) and Shan et al. (2020) indicates preference for negative frames. It is worth noting that literature is lacking actual comparison of the different framing types within the same study as only two of the relevant researches did so (Putrevu, 2010; Burböck et al., 2019), while also coming to differing conclusions. In the chapter that follows, this thesis will aim to expand the research on the two framing types by analysing them both within one study, testing the claims for attribute framing and giving more clarification on which frames are inherently better and preferred in situations of goal framing.

When looking at the stimuli used in the relevant literature, we could generally assume that positive frames are preferred for products that could fall into the utilitarian (Borin et al., 2011; Burböck et al., 2019; Janiszewski et al., 2003) and hedonic product category (Borin et al., 2011; Braun et al., 1997; Wu & Cheng, 2011). However, some studies that make clear product type distinction, suggest that product type can have a moderating effect on framing, therefore preference for the positive or negative frame can differ based on the product type. Such research was done by Kuo et al. (2019) and Kusumasondjaja (2018) who found that negative frames are preferred for utilitarian products and positive for hedonic products, while

Lee et al. (2018) found the opposite – participants preferred negative frames for hedonic and positive for utilitarian products. The research on product type and framing remains underexplored and inconclusive. This thesis aims to shed more light on the impact of product type on framing preferences and clarify which frames cause better attitudes, purchase intention and quality perception in cases of utilitarian and hedonic product, by performing an empirical analysis in the chapter that follows.

### **3. EMPIRICAL ANALYSIS OF THE EFFECT OF MESSAGE FRAMING AND PRODUCT TYPE ON CONSUMER BUYING BEHAVIOUR**

#### **3.1 Aims and objectives**

The effect of framing has been widely researched and publicized in social and cognitive psychology. While the use of it can be observed in day-to-day advertising campaigns, and even though it has been shown that the use of framing and its abilities to shape perception and affect the outcomes of the promoted product can substantially enhance marketing campaigns, the opinions on what framing strategy to acquire are mixed. While theory proposes that certain framing types and frames are better in persuading the consumer, the opinions and research findings are not as unanimous – in some contexts, positive frames are more persuasive, in others, negative frames seem to work better. Even though different framing types – namely attribute and goal framing have been well researched, only few authors compared the two types within one study. Moreover, the most guidelines have been made based on the research in the context of health message framing and health products, yet they are shown to not necessarily be applicable to other contexts or other types of goods. Consumers make decisions based on their expectations of the different values of products, thus authors propose a clear distinction in terms of product type, namely utilitarian and hedonic. Even though various product categories have been studied across framing literature and product type has been shown to have a moderating effect, barely any studies have considered a product type distinction when researching the frame preferences and its effects on the individual's behaviour.

The purpose of the research is therefore to understand how different framing types and product type affect consumer buying behaviour. More specifically, this thesis aims to find out which frames generate better purchase intention, attitude towards product and quality perception based on the product that is being framed and based on the framing approach that is applied to the advertising message. In order to explore the effect of message framing and product type, eight experimental stimuli in the form of an advertisement of a hedonic and utilitarian product were designed, each being positively and negatively framed in an attribute and in goal framing way. The experimental stimuli were then evaluated in terms of consumer buying behaviour.

#### **3.2 Hypothesis development**

Previous studies have shown that framing has a significant impact on consumers and their purchase intention (Ganzach & Karshai, 1995). Putrevu (2010) suggests that attitude towards the advertisement varies based on the type of framing, where in the case of attribute framing a positively framed message elicits a more favourable attitude and purchase intention. These

findings are uniform to studies such as the one by Wu and Cheng (2011), who have shown that framing an electronic translator as having a “80% success rate” generates a better attitude and purchase intention than framing it as having a “20% failure rate”. Similarly, Burböck et al. (2019) have displayed similar findings when framing a toothpaste as “removing 99% of dental caries” was deemed as more effective and generated a higher purchase intention and product attitude than framing it as “not removing 1% of dental caries. Despite Putrevu (2010) and Shan et al. (2020) coming to opposite findings in the case of goal framing, suggesting that negatively framed messages induced a more favourable attitude and purchase intention than the positively framed message, other studies that focus on goal framing suggest otherwise. Even though this is not in line with the LSG framework, which suggests that negative frames work better in case of goal framing, they do note that the results for this type of framing are not as consistent and that their findings could be limited by different contexts and variations of procedures. For example, Borin et al. (2011) examined the effect of this type of framing in product labelling and concluded that the purchase intention was higher when the message on a product highlighted the absence of a harmful ingredient, opposed to highlighting the presence of such ingredient. Similarly, Burböck et al. (2019) proved that also in the goal-framing situation, which highlighted the positive consequences of buying toothpaste, resulted in higher purchase intention and attitude than the situation describing the consequences of not using it. I propose the following hypothesis:

H1: In the case of both attribute and goal framing, the ads that are framed positively elicit a higher purchase intention and better attitude towards the product, compared to the negatively framed ones.

When studying consumer choices in the context of framing, we also have to consider the utilitarian and hedonic aspects of consumption. The consumption of the latter is characterized by pleasure, fantasy and fun, whereas the consumption of utilitarian goods is described as driven by cognition, aiming to accomplish a functional or practical task (Dhar & Wertenbroch, 2000).

Kusumasondjaja (2018) focused specifically on the aspect of the effectiveness of message framing on utilitarian and hedonic products. The results indicated that the positive labelled hedonic product – chocolate candy, generated a more favourable attitude than the negatively labelled one, whereas for the utilitarian product – milk, the negative label resulted in better attitude compared to the positive one. Similarly, Kuo et al. (2019) looked at effectiveness of advertisement frames on the persuasion of consumption of healthy versus unhealthy foods by goal framing a utilitarian product – yogurt, and a hedonic food - ice cream. They found that in terms of utilitarian foods, people are more loss averse since this type of food emphasises benefits of good nutrition. This can lead to people being more concerned about not buying a certain product and thus losing nutrition and therefore preferring the loss frame. In contrast, in the case of hedonic goods, whose consumption could be explained by the aspect of “having a try” and desire to attain a goal, a positive frame maximized their positive actions. These results are also in line with Braun et al. (1997), where the preference for a chocolate bar was higher when the stimulus presented it as 80% fat-free, compared to the chocolate bar labelled as 20% fat. Similarly to Levin and Gaeth (1988), Loke and Lau (1992), framed a hamburger patty either as “15 grams fat” or “as 35 grams meat” and found higher likelihood ratings in the positive framing condition.

On the other hand, we need to consider that results might vary across different domains. For example, Detweiler et. al. (1999) looked at the use of sunscreen and showed that gain-framed messages, which highlighted the potential benefits of using sunscreen, resulted in a more

positive attitude than the negative frames. This is also in line with Rothman and Salovey's (1997) rationale of gain frames being more persuasive in case of promoting health-affirming prevention behaviours – even though the loss frames induce a higher concern for risk, gain frames are more likely to motivate the change in behaviour. Similarly, Rothman et al (1993) found that the gain frame skin-cancer pamphlet resulted in more requests for sunscreen than the one that highlighted the negative consequences. This was, however, only the case for the female participants, while no such effect was observed among males. On the contrary, Japer et al. (2014) showed that emphasizing the risks of not using sunscreen was more persuasive than the gain framed advantages.

Therefore, I test the following hypothesis:

H2: The positively framed ads elicit a more positive attitude towards the product, regardless of the product type.

Another aspect of purchase behaviour we have to consider is perception of quality, which represents how an individual judges the superiority of the product. Levin and Gaeth (1988) who attribute-framed ground beef as either 25% fat or 75% lean, suggested that the latter was judged to be of higher quality. Janiszewski et al. (2003) findings were also in line with those results – they found that consumers perceived pasta sauce framed as 25% meat to be of higher quality compared to sauce framed as 75% tomato sauce. Similarly, Borin et al. (2011) found that using positive, goal-framed messages when describing various products such as apples, bar soap and mp3 players, generated a better perception of quality and were more likely to be purchased, compared to the messages that disclosed negative impacts. Based on that, I hypothesize the following:

H3: In the case of both attribute and goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

Even though Borin et al. (2011) did not make the utilitarian vs. hedonic distinction in their study, the products could be categorized into either category. For example, bar soap falls into the utilitarian category (Lim & Ang, 2008) while mp3 player is considered to be hedonic (Basso et al., 2019). While they found no quality perception differences between the different product types, Kusumasondjaja's (2018) findings suggest otherwise. The study, which focused specifically on the utilitarian and hedonic attributes showed that negative frames generated higher perception of quality only for the utilitarian product, whereas for the hedonic product, the perceived quality was higher when the packaging was framed positively. Therefore, I propose the following hypothesis:

H4: The utilitarian (hedonic) product labelled with a negative (positive) frame is perceived as being of better quality, compared the product labelled with a positive (negative) frame.

Several researchers noted how the distinction between hedonic and utilitarian products evokes different affective states when consuming those products (Dhar & Wertenbrach, 2000; Hirschman & Holbrook, 1982). Utilitarian products provide more cognitively oriented benefits, while hedonic provide entertainment but can also lead to guilt, suggesting that different approaches in framing might work better for different products (Lee et al., 2018). The findings on the topic of product type and framing concerning purchase intention are inconclusive. While Borin et al. (2011) found that both product types that had the positive messages were more likely to be purchased, Lee et al. (2018) found that positive messages, compared to negative ones, caused a higher purchase intention in case of utilitarian product - hair dryer. For the hedonic product - music CD, there were no significant differences on purchase intent between the two frames. On the other hand, Kuo et al. (2019) concluded that

participants had higher purchase intentions with negatively framed utilitarian option, while the positive frame worked better for the hedonic product. Lastly, I thus test the following hypothesis:

H5: The utilitarian (hedonic) product labelled with a negative (positive) frame generates a higher purchase intention compared to the product labelled with a positive (negative) frame.

### **3.3 Methodology**

#### **3.3.1 Research design**

Ever since Kahneman and Tversky (1979) first explored the effect of different phrasing on participant's choice in the form of an experimental design, the method has been consistently used across literature to test the framing effect and even upgraded to include various additional variables, calling for a factorial design (Lee et al. 2018; Chang, 2008; Kusumasondjaja, 2018). On the basis of previous studies, a similar design was applied in this thesis. Because the independent variables consisted of two levels, a 2 (framing: attribute vs. goal) x 2 (product: utilitarian vs. hedonic) x 2 (frame: positive vs. negative) experimental design was used. A within-subject design framework was applied, meaning that the participants were assigned to all eight situations at once instead of being randomly assigned to just one.

The first four situations focused on attribute framing and the other four on goal framing; within each type of framing, a utilitarian and a hedonic product were framed in a positive and in a negative way. The visual stimuli were presented in the form of eight advertisements, which had been designed in the program Canva and administered in the form of a questionnaire via the site 1KA.si. In order to avoid associations with prior attitudes and existing knowledge, an imaginary brand was used for both products. The advertisements were constructed to be as equivalent as possible, the main difference being the positive and negative distinction.

Even though prior research mainly used between-subject design, within-subject design is still considered as appropriate due to its advantages, the main one being that it removes the effect of participant characteristics between groups. Because one person participates in all conditions and interacts with all levels of a variable, all the variables are affected in the same way and internal validity does not depend on random assignment. Due to the removal of individual variation, it is also more statistically powerful. This way we get more than one observation per participant, since each one provides a data point for each level of the independent variable. In fact, in the case of using between-subject design, double the number of participants would be required to achieve the same level of statistical power. Lastly, literature suggests that this type of framework is more naturally aligned with majority of the theorists, as they are more likely to imagine an individual in a market reacting to a change of product compared to two individuals in separate markets exposed to two separate changes (Charness et al., 2012).

#### **3.3.2 Stimuli design**

Three criteria were used in choosing the products for the stimuli: firstly, that both products were capable of being effectively positively and negatively presented in an attribute and goal

framing way. Secondly, the products were chosen based on the likelihood that the respondents were already familiar with them and have used them in the past. Lastly, I chose products and stimuli similar to those that had already been mentioned and researched in relevant literature.

Sunscreen was chosen as the utilitarian product, as it is at its core a purely functional product, is categorized as such in previous studies (Linter, 2017; Drolet, 2007) and had already been used in papers on framing (Detweiler et al., 1999; Jasper et al., 2014). The stimuli therefore highlighted purely functional attributes and health aspects. For the hedonic product, a food product was used, as they have been widely mentioned across multiple framing studies (Levin & Gaeth, 1988; Shan et al., 2020; Kuo et al., 2019; Borin et al., 2011; Kusumasondjaja 2018). More specifically, I picked a chocolate bar, as it associated with hedonic enjoyment due to its composition and sensory appeal - such as texture and aroma as well as emotional and psychological associations. It has been classified in multiple papers as a hedonic product (Schouteten et. al, 2018; Alaoui et al., 2022) and included in papers on the framing effect (Kusumasondjaja, 2018; Braun et al., 1997).

The first four advertisements focused on attribute framing. The participants were shown two differently manipulated ads for a sunscreen, first one highlighting a positive attribute and the second one highlighting the negative attribute. In the positive framing condition, the sunscreen was described as “SOLARPROTECT. Blocks 99% of skin cancer causing UV rays”, whereas in the negative framing condition, it was described as “SOLARPROTECT. Fails to block 1% of skin cancer causing UV rays”. The next two advertisements showed two differently manipulated ads for a chocolate bar. First, the positive frame read: “ROYAL BITES. Premium taste. 90% sugar-free.”, whereas in the negative framing condition, the chocolate bar was described as “ROYAL BITES. Premium taste. Only 10% sugar.”

The second set of stimuli followed the same structure, only this time the advertisements were goal framed. In the positive goal framing condition, the positive consequences of using sunscreen were described in the form of the following slogan: “Achieve healthy, cancer-free skin by using SOLARPROTECT. A choice your skin will be thankful for.” In contrast, in the negative condition, the product was described as: “Avoid the risk of developing skin cancer by using SOLARPROTECT. Don’t regret your skincare choices.” In the last two manipulated ads, the positive consequences of purchasing the chocolate bar were first mentioned as follows: “Indulge in superior taste of ROYAL BITES. Enjoy the royal treatment every day.”. The negative consequences of not purchasing the product was described with the slogan: “Don’t miss out on the superior taste of ROYAL BITES. Don’t go another day without the royal treatment”.

### 3.3.3 Primary data collection

Primary data was collected through an online questionnaire 1KA which had been active from June 2<sup>nd</sup> 2023, to June 16<sup>th</sup> 2023 and distributed to respondents via social media (Instagram and Facebook). In the first part of the questionnaire, respondents had to answer some general demographic questions as well as lifestyle questions related to products used in the stimuli. In the next part, they had to rate eight advertisements, which measured the researched variables. Respondents had to evaluate the advertisements by rating statements which measured their attitude, purchase intention and perceived quality on a 5 point Likert scale, ranging from 1=completely disagree to 5=completely agree. The experimental measures consisted of measurement items for dependable variables, based on already existing scales from prior studies, pictured in Table 2. First, the perception of quality was measured using

the statement “The product is of high quality”, which was borrowed and modified from Wang (2013) and Ha and Jang (2010). The second variable, purchase intention, was measured by items, which were adapted from Wu & Cheng (2011), Lin & Shen (2012) and Segev et al. (2015) and included three statements: “I would consider buying this product soon”, “I would consider buying this product in the future” and “I would advise my friend to buy this product”. Lastly, the attitude towards the product was measured using items from Voss et al. (2003) and differed slightly between the utilitarian and hedonic products. Three statements measured the attitude and were “The product is effective”, “The product is helpful” and “The product is practical” for the utilitarian product and “The product is fun”, “The product is exciting” and “The product is enjoyable” for the hedonic product.

*Table 2: Measurement scale*

<b>Variable</b>	<b>Measurement statement</b>	<b>Adapted from</b>
Quality perception	The product is of high quality.	Wang (2013), Ha & Jang (2010)
Purchase intention	I would consider buying this product soon.	Wu & Cheng (2011), Lin & Shen (2012), Segev et al. (2015)
	I would consider buying this product in the future.	
	I would advise my friend to buy this product.	
Attitude towards product	The product is effective.	Voss et al. (2003)
	The product is helpful.	
	The product is practical.	
	The product is fun.	
	The product is exciting.	
	The product is enjoyable.	

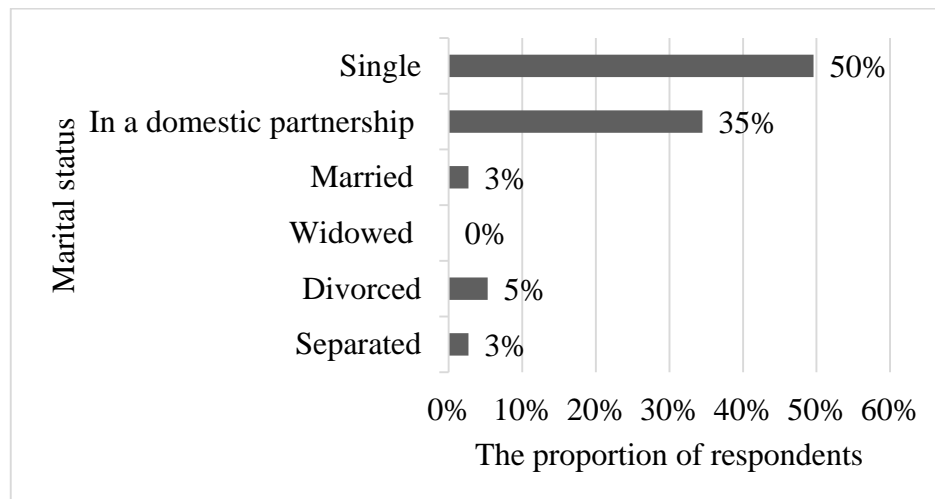
*Source: Own work.*

### 3.3.4 Sample description

Out of the 167 people that clicked on the questionnaire, 55 did not finish it completely, therefore making 112 eligible respondents in total.

The convenience sample consisted of 112 respondents, 38% of which were male and 62% of which were female, with the average age of 26. Figure 8 representing the marital status shows that half of the sample was single, 35% in a domestic partnership, while the rest was either married, divorced or separated.

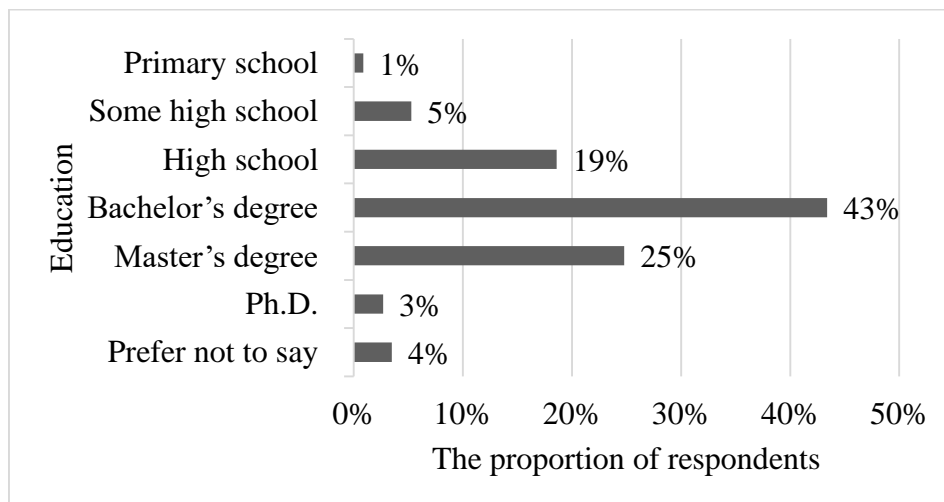
Figure 8: Share of respondents by marital status



Source: Own work.

With regards to the level of education, Figure 9 shows that the most respondents, 43%, have acquired Bachelor's degree, followed by 25% of which have a Master's degree. 19% of the people have completed high school, while 5% have completed some high school. 3% have acquired a doctoral degree, while 1% have stated primary school as their highest level of education.

Figure 9: Share of respondents by highest level of education acquired

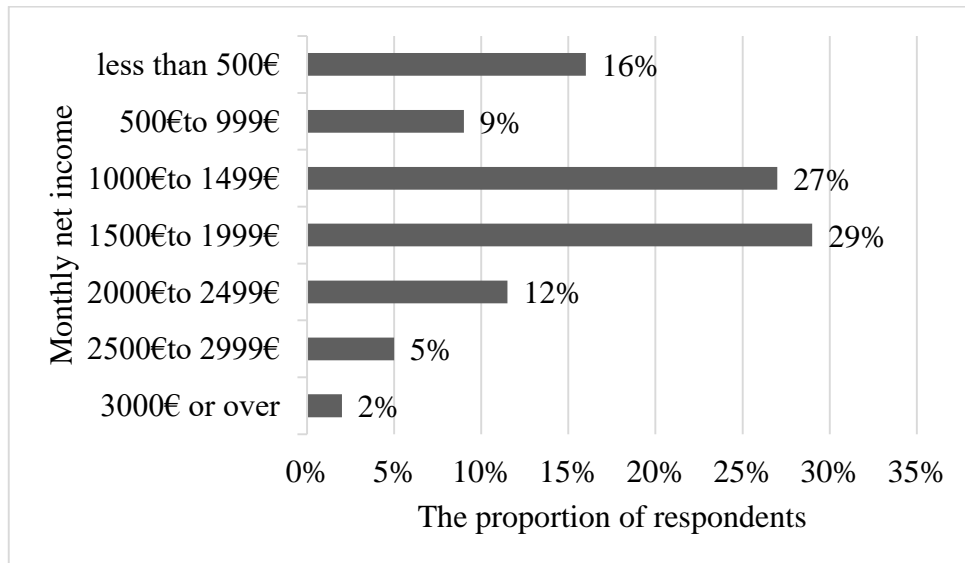


Source: Own work.

As per data in Figure 10, 29% of the respondents earned between 1500 EUR and 1999 EUR net per month, followed by 27% of those that earned from 1000 EUR to 1499 EUR, while 25% earned 999 EUR or less. On the other end of the income scale, 12% earned between 2000€ and 2499€, while 7% earned 2500€ or more.



Figure 10: Share of respondents by monthly income



Source: Own work.

In the following set of questions, the respondents were asked about some of their lifestyle choices and habits pertaining to the two chosen products - chocolate and sunscreen.

The first question asked about their diet and health choices. 83 % respondents claimed that they made an effort to eat a healthy and well-balanced diet, while the remaining 17% did not. Besides that, 73 % of the sample answered that they exercised moderately intensely three days a week for at least 30 minutes while 27% did not.

The questions that followed referred to chocolate consumption. The data showed that 83 % of the respondents (93 people) consumed chocolate while 17% (19 people) did not. The latter were asked to specify the main reason for it; the most frequent answer being poor nutritional value (47% or 9 people), followed by a dislike for the taste (42% or 8 people). 10% (2 people) stated allergy as the reason, shown in Table 3.

Table 3: The proportion of respondents according to reason for not consuming chocolate

Reason for not consuming chocolate	Proportion of respondents (%)
Poor nutritional value	9 (47%)
Dislike for the taste	8 (42%)
Allergy	2 (10%)
Other	0 (0%)
Total	19 (100%)

Source: Own work.

Those that did consume chocolate were first asked about the frequency of consumption. 18% or 17 people consumed it daily, while weekly (33% or 31 people) and bi-weekly (23% or 21 people) consumption was the most common. Table 4 depicts the frequency of each answer choice.

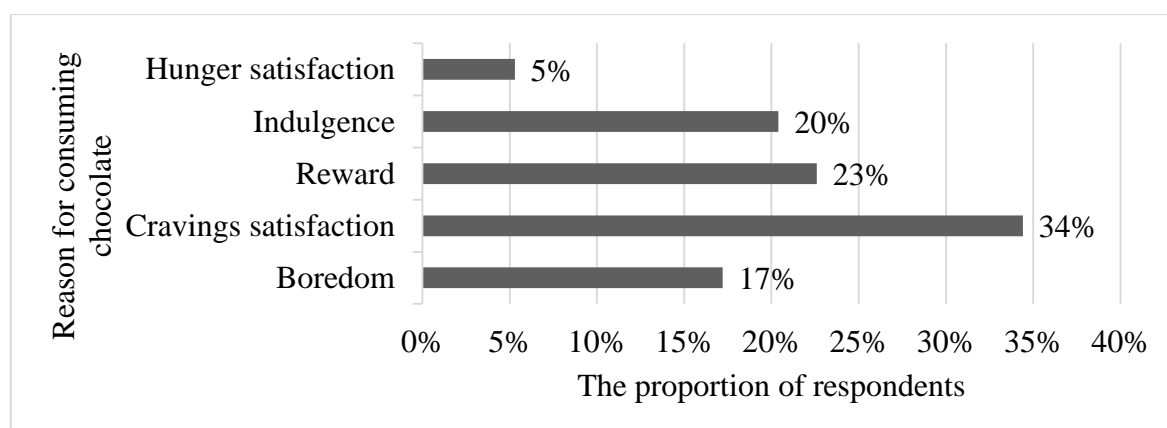
Table 4: The proportion of respondents according to how often they consume chocolate

Frequency of chocolate consumption	Proportion of respondents (%)
Daily	17 (18%)
Weekly	31 (33%)
Once a fortnight	21 (23%)
Monthly	17 (18%)
Quarterly	7 (8%)
Total	93 (100%)

Source: Own work.

In the next question, the respondents were asked to select the reason for consuming chocolate. As seen in Figure 11, the largest share, 34% (or 32 respondents), consumed it to satisfy cravings, followed by 23% (21 respondents) that viewed the consumption as a reward, while 20% (19 respondents) did it to indulge in it. 17% (16 respondents) stated boredom as the main reason and the remaining 5% (5 people) stated that they consumed it to satisfy hunger.

Figure 11: The proportion of respondents according to reason for consuming chocolate



Source: Own work.

The aim of the questions that followed was to find more about the utilitarian product – sunscreen and its usage among the respondents. 71 of them (63%) said that they used sunscreen while 41 (37%) did not. Those that did not use it were presented with a multiple choice question and asked to select all the reasons for not using it. As the data in Table 5 shows, the most commonly picked reason was that they found it to be unnecessary, followed by the answer that it did not prevent their skin from burning, as well as a dislike for the formulation. To a lesser extent, the respondents claimed that it caused irritation.

Table 5: The proportion of respondents according to reason for not using sunscreen

Reason for not using sunscreen	Frequency (%)
Does not prevent skin from burning	22 (53%)
Causes irritation	11 (27%)
Dislike the formula	19 (46%)
Unnecessary	31 (75%)
Other	0 (0%)

Source: Own work.

The 71 people that did use sunscreen were asked about the Sun Protect Factor (hereinafter: SPF) they most commonly use. Out of the 71 people, 21% or 15 people used sunscreen with a SPF 15 or less, 38% or 27 people SPF 30, while 41% or 29 people used SPF 50 or higher.

When given a multiple choice question and asked to select all the reasons for sunscreen usage, the most frequently picked reasons were sunburn and skin cancer prevention, followed by prevention of premature ageing and to a lesser extent, limitation of sunspots. Table 6 shows the frequency of each answer.

Table 6: The proportion of respondents according to reason for using sunscreen

Reason for using sunscreen	Frequency (%)
Sunburn prevention	63 (89%)
Skin cancer prevention	61 (86%)
Prevention of premature ageing	44 (62%)
Limitation of sunspots appearance	19 (27%)
Prevention of sun allergy	4 (5%)

Source: Own work.

The next part of the questionnaire measured respondents' quality perception, attitude towards product and purchase intention on the basis of 8 different situations with 3 independent variables: framing type, frame type and product type. As it is relevant for the hypothesis testing, it will be discussed in more detail in the following chapter.

### 3.4 Hypothesis testing and overview of the results

In this chapter I will present and overview the result of hypotheses testing, where I tested frame preferences in terms of purchase intention, attitude towards product and quality perception based on framing type and product type.

#### 3.4.1 Purchase intention and attitude towards the product based on framing type

In the first hypothesis, I aimed to test frame preferences in the scope of purchase intention and attitude towards the product based on framing type.

H1: In the case of both attribute and goal framing, the ads that are framed positively elicit a higher purchase intention and better attitude towards the product, compared to the negatively framed ones.

As attitude towards the product was measured with multiple statements (“The product is effective”, “The product is helpful.” and “The product is practical.” for utilitarian product and “The product is fun.”, “The product is exciting.” and “The product is enjoyable.” in the case of hedonic product), the first step was to calculate a new variable mean purchase intention for all eight advertisements, which represented the average of these three statements. The same was done for the dependent variable purchase intention, which was measured by the statements “I would consider buying this product soon.”, “I would consider buying this product in the future.” and “I would advise my friend to buy this product.”

Since I wanted to analyse the purchase intention and attitude towards product with regards to framing type and frame type, I followed the second order construct approach and proceeded to calculate an average that disregarded the product type, as this variable was not of interest in H1. This resulted in four variables of average attitude and four variables of average purchase intention, each differing based on the combination of the independent variables framing type (attribute vs. goal) and frame type (positive vs. negative). These variables were then used to perform a paired sample T-test in order to compare the means of attitude towards the product and purchase intention across four different treatments within the group. Cronbach alpha for reliability and Average variance extracted (AVE) for validity of measurements had been calculated for those new constructs. As shown in Appendix 15, Cronbach's alpha values were equal or above 0.7, indicating good internal consistency, while the AVE were over 0.5, indicating good validity. Since this was a combined hypothesis, I divided it into four sub-hypotheses, namely H1a, H1b, H1c and H1d and performed the T-test on each of them.

H1a: In the case of attribute framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.

Results of the T-test show that the mean purchase intention in the positive framing condition was higher ( $M=3.60$ ), compared to the negatively framed condition ( $M=3.21$ ), with a 0.40 difference between the two. The p-value  $p=0.006$  indicates that there is a significant difference, therefore we can reject the null hypothesis and conclude that purchase intention is higher in the positive attribute framing condition, compared to the negatively framed attribute framing condition. The results can be found in Appendix 3.

H1b: In the case of attribute framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.

Similarly as in the previous hypothesis, results shown in Appendix 4 indicate that in the case of attribute framing, the advertisements that were framed positively generated a better attitude towards product ( $M=3.73$ ) compared to the negatively framed advertisements ( $M=3.01$ ), indicating a 0.72 difference between the means at a significance level of  $p=0.000$ , thus rejecting the null hypothesis. We conclude that when attribute framing is applied, positively framed ads generate a better attitude towards product, compared to the negatively framed ones.

H1c: In the case of goal framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.

The T-test results shown in Appendix 5 indicate a lower mean value for attitude towards the product in the positive framing condition ( $M=3.95$ ), compared to the negative goal framing condition ( $M=4.03$ ) with a mean difference -0.08. There is no significant difference between the two at  $p=0.213$ , therefore we consider the null hypothesis to be true. We conclude that

when goal framing is applied, the positive framed ads do not cause a better attitude towards product compared to the negative ones.

H1d: In the case of goal framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.

In the goal framing condition, we can observe a -0.24 mean difference in purchase intention scores between the positive frame ( $M=3.53$ ) and negative frame ( $M=3.77$ ). Even though results prove that there is a significant difference between the two conditions at  $p=0.004$ , the direction of the mean difference is not as assumed due to the hypothesis being formulated as one-tailed. We reject the alternative hypothesis and conclude that positively goal framed advertisements do not cause a higher purchase intention compared to the negatively framed ones. The results of the test are shown in Appendix 6.

As only the first two sub-hypotheses were supported, we can partially accept H1 and conclude that only in the case of attribute framing, the ads that are positively framed generate a better attitude towards product as well as higher purchase intention, whereas this cannot be claimed for cases where ads are goal-framed.

### 3.4.2 Attitude towards the product based on product type

In the second hypothesis, I aimed to find out frame preferences in the scope of attitude towards the product, based on the type of product that is being framed.

H2: The positively framed ads elicit a more positive attitude towards the product, regardless of the product type.

This hypothesis, similarly as the one before, required a division into two sub-hypotheses H2a and H2b. Using the same approach as above, a new construct was determined for each product type, which presents an average attitude value in positive and negative framing condition for utilitarian and hedonic product, except this time disregarding the framing type. Those variables were then used in a paired sample T-test to test the hypotheses. Cronbach alpha and AVE were calculated resulting in values equal or above 0.7 for the first one and over 0.5 for the second one, indicating good internal consistency and validity. A more detailed table of the quality of measure can be found in Appendix 15.

H2a: In the case of a utilitarian product, the positively framed ads elicit a more positive attitude towards the product, compared to the negatively framed ones.

The results of the T-test for this hypothesis, found in Appendix 7, show that the mean attitude score in positively framed advertisements for utilitarian product is higher ( $M=3.69$ ) than in the ads that are negatively framed ( $M=3.46$ ). At a mean difference of 0.23 and significant difference of  $p=0.014$  we can reject the null hypothesis and assume that the attitude towards the utilitarian products is higher when the ad is framed positively, compared to the negative framing condition.

H2b: In the case of a hedonic product, the positively framed ads elicit a more positive attitude towards the product, compared to the negatively framed ones.

In this hypothesis, test results shown in Appendix 8 indicate a higher mean attitude towards the hedonic product in the positive framing case ( $M=3.99$ ) in comparison to the negative framing condition ( $M=3.58$ ), with a mean difference of 0.41, at a significant level  $p=0.000$ . Based on these findings, we can reject the null hypothesis and conclude that when a hedonic

product is framed in a positive way, the attitude towards it is better than when such product is framed in a negative way.

Based on the two sub-hypotheses we can accept H2 and conclude that in the case of both utilitarian and hedonic product, the attitude towards product is going to be better when the advertisement is framed in a positive way.

### 3.4.3 Perception of quality based on framing type

The aim of the third hypothesis was to find out which frames produce higher quality perception scores based on the framing approach used.

H3: In the case of both attribute and goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

The third hypothesis was divided into two sub-hypotheses as well, separating them by framing type and calculating new constructs for each frame, not taking the account the product type. As shown in Appendix 15, Cronbach alpha indicated good reliability as the values were equal or above 0.7, whereas AVE showed good validity with values above 0.5.

H3a: In the case of attribute framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

The results shown in Appendix 9 indicate that the perceived quality in attribute framing condition is higher when the advertisements are framed in a positive way ( $M=3.58$ ) rather than in a negative way ( $M=3.35$ ), with a 0.23 difference between the two and significant difference at  $p=0.002$ . Therefore, we can reject the null hypothesis and conclude that in case of attribute framing, the positively framed advertisements results in a better quality perception than the negatively framed advertisements.

H3b: In the case of goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

Results of this hypothesis found in Appendix 10 indicate a lower mean value for the positively framed ads ( $M=3.58$ ), compared to the negatively goal framed ones ( $M=3.76$ ) with a mean difference of -0.18 and significant difference of  $p=0.046$ . Due to the hypothesis being formulated as one-tailed we accept the null hypothesis, concluding that the positive ads in the goal framing condition do not induce a greater perception of the quality of the product in comparison to the negatively framed one.

We can partially accept H3, concluding that only in the case of attribute framing, the quality perception is higher if the ad is positively framed, while this is not the case in goal framing.

### 3.4.4 Perception of quality based on product type

The aim of the fourth hypothesis was to find out which frames generate higher quality perception scores based on the type of product that is being framed.

H4: The utilitarian (hedonic) product labelled with a negative (positive) frame is perceived as being of better quality, compared to the product labelled with a positive (negative) frame.

This hypothesis has been divided into two sub-hypotheses as well, first analysing quality perception for the utilitarian product and the second for hedonic one. New constructs had been calculated for the quality variable, taking into account product type and frame type and disregarding the framing type. Cronbach alpha over 0.7 and AVE over 0.5, also shown in Appendix 15, indicate that there was good validity of measurement and internal consistency.

H4a: The utilitarian product labelled with a negative frame is perceived as being of better quality, compared to the product labelled with a positive frame.

T-test results for this hypothesis, shown in Appendix 11, demonstrate a mean quality difference of -0.17 between the positively framed utilitarian product ( $M=3.39$ ) and negatively framed utilitarian product ( $M=3.56$ ) at  $p=0.045$  making this difference significant. We conclude that the utilitarian product that is framed in a negative way does induce a higher perception of quality, compared to the positively framed product.

H4b: The hedonic product labelled with a positive frame is perceived as being of better quality, compared to the product labelled with a negative frame.

The results of this hypothesis show a mean difference score of 0.17 between the quality perception of the positively framed hedonic product ( $M=3.74$ ) and the negatively framed hedonic product ( $M=3.57$ ), which aligns with our hypothesis. Moreover, the results demonstrate a significant difference of  $p=0.023$ , therefore we are able to conclude that the positively framed hedonic product is indeed perceived as being of higher quality, compared to the negatively framed hedonic product. The test results can be found in Appendix 12.

Based on the results we can accept H4 and conclude that the quality perception is higher when the utilitarian product is framed negatively, whereas the hedonic product is perceived as being better quality when the positive frame is applied.

### 3.4.5 Purchase intention based on product type

In the last hypothesis, I aimed to find out which frames result in higher purchase intention scores based on the type of product that is being framed.

H5: The utilitarian (hedonic) product labelled with a negative (positive) frame generates a higher purchase intention, compared to the product labelled with a positive (negative) frame.

Same as in previous hypotheses, four new variables of purchase intention have been calculated using the second order construct approach, based on the product type and frame type and disregarding framing type. Cronbach alpha and AVE were calculated as well, demonstrating values over 0.7 for the first and 0.5 for the second measurement; the quality of measure can be found in Appendix 15. The hypothesis was then divided into two sub-hypotheses and each of them was tested using the paired samples T-test.

H5a: The utilitarian product labelled with a negative frame generates a higher purchase intention, compared to the product labelled with a positive frame.

The results shown in Appendix 13 indicate a lower purchase intention when the utilitarian product is framed positively ( $M=3.48$ ) than when it is framed negatively ( $M=3.50$ ) at a mean difference of -0.02. Since  $p=0.847$ , we are unable to support the alternative hypothesis. Therefore, we accept null hypothesis, which states that the utilitarian product that is framed negatively does not induce a higher purchase intention than the product that is framed positively.

H5b: The hedonic product labelled with a positive frame generates a higher purchase intention, compared to the product labelled with a negative frame.

T-test result of this hypothesis. shown in Appendix 14, indicate a mean purchase intention score that is higher in the case of positively framed hedonic product (M=3.65) and lower in the case of a negative frame (M=3.48). With a mean difference of 0.17 and p value  $p=0.005$ , we find a significant difference between the two and thus support the alternative hypothesis, stating that positive frame generates a higher purchase intention of hedonic product, compared to the negatively framed one.

We can partially support H5, concluding that in the case of a positively framed hedonic product, the purchase intention is higher, compared to a situation where hedonic product is framed negatively.

### 3.5 Findings

In this chapter, I will summarize the main findings of the qualitative research on the effect of message framing and product type on consumer purchase behaviour. Based on prior research, I have developed five hypotheses, two of which were supported and three partially supported. Results can be seen in Table 7.

*Table 7: Review of the hypotheses testing*

<b>Hypothesis</b>	<b>Result</b>
H1: In the case of both attribute and goal framing, the ads that are framed positively elicit a higher purchase intention and better attitude towards the product, compared to the negatively framed ones.	Partially supported
H2: The positively framed ads elicit a more positive attitude towards the product, regardless of the product type.	Supported
H3: In the case of both attribute and goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.	Partially supported
H4: The utilitarian (hedonic) product labelled with a negative (positive) frame is perceived as being of better quality, compared the product labelled with a positive (negative) frame.	Supported
H5: The utilitarian (hedonic) product labelled with a negative (positive) frame generates a higher purchase intention, compared to the product labelled with a positive (negative) frame.	Partially supported

*Source: Own work*

In H1, I aimed to find out whether the attitude towards the product and purchase intention are higher in cases of attribute and goal framing. Results confirmed that this is the case for attribute framing as respondents showed a better attitude towards the product as well as purchase intention when the ads were framed in a positive way, rather than in a negative way. Such results had already been noted by Levin et al. (1985), who looked at the effect of message framing in three situations and observed that ratings were more in favour of attributes expressed in positive compared to the negative terms. Similarly, Levin and Gaeth (1988) found that positively framed message caused superior attitudes and intent to purchase, suggesting that highlighting the positive appeal emphasizes the overall advantages of a



specific attribute. These findings are consistent with studies by Wu and Cheng (2011), Putrevu (2010) as well as Burböck et al. (2019). An explanation for such results could be found in prospect theory, which assumes that perceived losses are less preferred to perceived gains, even though the objective is the same. In addition to that, Levin and Gaeth propose that cognitive processing may play a role, where positive frames activate positive associations, while negative frames trigger negative associations, affecting the evaluation.

As for goal framing, the hypothesis also assumed that attitude and purchase intention would be higher when the ads were framed in a positive way. This was based on a study conducted by Borin et al. (2011), which found that highlighting the absence of an environmentally harmful ingredient, opposed to highlighting the presence of such ingredient, is viewed better and generates higher purchase intention. Similarly, Burböck et al. (2019) found that highlighting how dental plaque and caries can originate from not using toothpaste resulted in higher purchase intention and attitude towards product. The results of the questionnaire, however, showed no difference in attitude towards the product between the two frames, whereas purchase intention was higher in the case of negatively framed stimuli. This is in line with Putrevu (2010) and Shan et al. (2020) findings, displaying a higher purchase intent when presenting respondents with the negatively framed advertisement. It is also in line with the LSG framework, where negatively worded consequences were more persuasive than the positively worded ones.

Literature explains that in attribute framing, the cognitive processes in both types of frames push the individual in opposing directions, to the point where the positive frame is more likely to yield a positive response, therefore respondents are more likely to prefer the positive frame. As for goal framing, both positive and negative messages encourage individuals to act in the same direction - to either obtain a positive consequence or avoid the negative one, where the negative frame seems to be more persuasive and have more motivating power in promoting the same act (Putrevu, 2010).

In the second hypothesis, I aimed to prove that regardless of the product type, the positively framed advertisement elicits a better attitude towards the product, compared to the negatively framed one. Some studies, which compared products that fall into the same category (for example food products (Kusumasondjaja, 2018; Kuo et al. 2019), claimed that there was indeed a difference in attitude based on the product type. There, the positive frames worked better with hedonic products, since they present the notion of attaining a desirable end state and cause a higher likelihood of consumers engaging in heuristic processing. These results are in line with our hypothesis, where the gain frame did indeed generate a better attitude in comparison to the negative frame. Conversely, negative frames were preferred for the utilitarian products in said studies and resulted in a better attitude, possibly due to highlighting the lack of a necessity for a basic need. However, since the two products in this thesis did not fall into the same category, unlike in the studies mentioned above, the sub hypothesis regarding the utilitarian product – sunscreen, was rather based on the study by Detweiler et al. (1999), which used a sunscreen brochure as the stimuli and found that gain frames generated better attitude. These findings are in line with the proposed hypothesis as well as Rothman and Salovey's (1997) theory that using sunscreen could be considered a prevention behaviour as it helps maintain one's current healthy status and prevent skin cancer. People will choose prevention behaviours, which are considered risk-averse due to the benefits offered and are emphasized in the positively framed message. This is also in line with prospect theory, which posits that the risk-averse option tends to be chosen when presented with positively framed information.

The third hypothesis aimed to prove that the perceived quality is higher when the advertisement is framed in a positive way, compared to a negative frame in cases of both types of framing, which was partially supported. Only in the case of attribute framing was the perceived quality higher in the positive framing condition. These results comply with the findings of Levin and Gaeth (1988) and Janiszewski et al. (2003). As for goal framing, Borin et al. (2011) found that the products were rated as being better quality when the messages were positively framed, while our results showed the opposite; it was actually the negative goal frames that caused a better quality perception of the products. This could be explained by the stream of research claiming that people tend to have a better response towards negative messages due to loss aversion principle (Levin et al., 1998).

While Borin et al. (2011) found that overall quality perception is higher in case of positive frames, regardless of the product type, Kusumasondjaja (2018) proved otherwise. In his study, the positive frames led to higher quality scores for hedonic product, while negative frames worked better for the utilitarian product. The fourth hypothesis thus assumed that the negatively framed utilitarian product would be perceived as being of better quality, whereas for the hedonic product, the positive frame would result in higher quality score. The results showed support for this hypothesis and could be explained by the fact that the hedonic products are consumed for enjoyment so consequently, the consumers are more likely to pay more attention and be fonder of the benefits that can be attained. Conversely, the utilitarian products satisfy a basic need so consumers are likely to be more attentive to negative cues due to loss aversion and negativity bias.

While the findings across literature regarding purchase intent and framing across different product were inconsistent, the last hypothesis' objective was based on the study by Kuo et al. (2019) which found an asymmetric effect – the negatively framed utilitarian product caused a higher purchase intent, compared to the positively framed one and vice versa for the hedonic product. The result of the last hypothesis showed no preference for a certain frame in the case of utilitarian product. As for the hedonic product, results were in line with the hypothesis since the positive frames induced a higher intent to purchase compared to the negatively framed situation. People buy hedonic products to satisfy immediate gratification and are appealing due to gain of a desire. Since studies show that guilt and affect may have an influence on the consumption (Braun et al. 1997), consumers might want to avoid the guilt by choosing the positive message instead, indicating that hedonic products seem to induce risk-averse behaviour.

## **4. DISCUSSION**

### **4.1 Managerial implications**

According to findings in cognitive psychology, individuals' choices can differ based on how information is presented. This includes cognitive biases such as the framing bias, which had been embraced and utilized by advertisers all over modern media. Even though framing is essentially presenting objectively equivalent information using different perspectives, existing literature has shown that there is no fits-all approach, as consumers respond differently to cues that essentially deliver the same information. Given the existing state of research, practitioners in social marketing remain unclear about the most effective use of positive and negative framing for encouraging wanted consumer behaviour. Overall, we can

argue that consumers' purchase choices might be affected based on the way information about a product is conveyed to them, in the form of either a positive or a negative message.

Different framing approaches have been adopted in advertising across different domains as an important marketing communication tool in order to influence consumer's decisions and persuade the consumer. This research provides an explanation for this phenomenon by showing that consumer responses toward framed messages depend on the type of framing applied (attribute versus goal) as well as product type (utilitarian versus hedonic). The results of this thesis yield implications for managers and advertising practitioners by providing guidance on how to effectively convey product value.

Firstly, the results indicate that the consumer decision-making differs based on the framing strategy applied. Overall, consumers are more likely to prefer positive frames when attribute framing is applied in the advertised message. In the case of using the goal framing approach, however, consumers are more likely to buy the product and see it as being better quality when the message is framed in a negative way. These findings are useful for managers and advertisers as they show how different word plays used in advertising campaigns can affect the consumer behaviour and provide guidelines on which frames to apply when implementing a certain type of framing. Even though positive frames are mostly used outside of laboratory research, results suggest that advertisers should consider implementing negative goal framing more often in order to elevate the attitude and perception the consumers have towards the product, as well as persuade them into buying said product.

Secondly, the results emphasize that implementation of effective message framing can shape consumer perception of product quality, overall attitude and purchase intention of hedonic food and utilitarian health products. The findings indicate that for hedonic products, positive frames enhance all of the researched dimensions of consumer behaviour, while for the utilitarian products, results are more mixed – negative frames generate higher quality perception while positive frames are more effective when attitude towards a product is considered. No preference for a certain frame was found when measuring purchase intention. These findings offer contributions for managers and advertisers of hedonic food and utilitarian health products, indicating that it is necessary to consider the product category when implementing a message framing strategy to an advertising campaign.

Considering that advertising campaigns are important marketing communication tools that engage with consumers at the point of purchase, mistakes in selecting the most optimal framing strategy for a product might negatively affect the overall perception of the product, as well as sales performance on the market. The results of this thesis therefore give us insights on that topic in a sense of guidelines for practitioners to help them create product messages and advertisement descriptions that will favour retailers as well as open space for further research on this topic.

## **4.2 Theoretical implications**

The concept of message framing is rooted in prospect theory (Kahneman & Tversky, 1979) and Tversky and Kahneman's (1981) study of framing of decisions and the psychology of choice, which posit that the way a decision is presented or worded can significantly influence individuals' decision-making, even when the actual outcomes of the decision are the same. Levin and Gaeth (1988) built on these findings and made the concept of framing more consumer-oriented by using direct qualitative attributes of a product as the stimuli. Even though their findings are the foundation for the majority of research on message framing in the context of consumer behaviour, the systematic review of literature suggests that there is

a lack of consistency in the findings when it comes to the impact of positive versus negative framing. Some studies suggest that positive frames are more effective, while others report the efficacy of negative frames. Some of these uncertainties can be explained by the LSG framework (Levin et al., 1998) which expanded Kahneman's and Tversky's findings by identifying three distinct types of framing models and their underlying mechanisms, with attribute and goal framing being the most commonly used strategies in communication. Their framework proposes that positive frames are preferred when attribute-framing model is applied, whereas in cases of goal-framing model, there is a general preference for negative frames.

Within the consumer behaviour research, the findings have mainly been conclusive in cases of attribute framing (Braun et al., 1997; Burböck et al., 2019; Janiszewski et al., 2003; Loke et al., 1992; Putrevu, 2010; Wu & Cheng, 2011), demonstrating a preference for positively framed messages over the negative ones. Levin and Gaeth (1988) suggest that encoding positively framed messages activates associations that are more favourable. This was also proven within this thesis, as the respondents preferred positively framed advertisements, confirming and strengthening the assumptions of the attribute-framing model.

The findings on the application of goal framing and its effect on consumer behaviour are not as robust. While some indicate preferences for positive frames (Borin et al., 2011; Burböck et al., 2019; Orth et al., 2005; Rothman et al., 1999; Rothman, 1993), others are more in line with the assumptions of the goal framing model, proposing preference for negative frames (Jasper et al., 2014; Meyerowitz & Chaiken, 1987; Moon et al., 2016; Putrevu, 2010; Shan et al., 2020). Preference for negative frames was also proven in this thesis, thus contributing more clarity in the scope of research of the goal-framing model. The results comply with prospect theory, which argues that due to loss aversion, highlighting negative consequences has a stronger effect on consumers.

While the framing literature has been well researched in different settings and indicated various moderators which affect framing preferences, one of them also being product type, this particular distinction has been underexplored and the findings have shown to be inconsistent. On one hand, Lee et al. (2018) found that when utilitarian products are framed, positive frames are preferred, whereas for hedonic products, negative frames work better. On the other hand, Kuo et al. (2019) and Kusumasondjaja (2018) found the opposite: positive frames caused better consumer behaviour for hedonic product, while negative frames were preferred in utilitarian products. The findings of this research for the hedonic product were unanimous with the latter, as positive frames were preferred in all researched dimensions of consumer behaviour, giving some more coherent results to the research of hedonic product in the framing paradigm. Explanation for this could stem from the fact that hedonic products serve tertiary needs and are consumed to attain enjoyment, therefore consumers tend to prefer the message that highlights the potential benefits and positive consequences.

The findings for the utilitarian product were not as unanimous. In terms of attitude towards the product, the positive frames emphasizing the gains that using the product can offer, were preferred. Here, we might need to consider the type of stimuli that was used to explain the results and message framing in health related decisions. Rothman and Salovey (1997) and Rothman et al. (1993) categorize the usage of sunscreen as preventive health behaviour as it maintains health and deter the occurrence of a health problem, such as skin cancer. Choosing the prevention behaviour (or in prospect theory's language, risk-averse option), which is presented with the positively framed information, will maintain good health. In the aspect of perceived quality, negative frames were preferred for utilitarian product, which could be explained by loss aversion, whereas there were no observable preferences for frames when

measuring purchase intention. It is worth noting that these mixed results could stem from either of the limitations of the research, creating opportunity for further research on the topic of utilitarian products in the scope of message framing.

This research is based on the observation that the delivery of messages can influence how an individual will perceive the product and influence their consumption and that presenting information in terms of gains or losses can shape the individuals' behaviour. Even though the topic of framing has been well researched, results were often mixed and lacked a framing type and product type distinction. This thesis builds on the findings of prospect theory and clarifies the inconsistencies in the research of the attribute and goal-framing model in the scope of consumer behaviour. It also highlights the importance of product type distinction and contributes to the previously underexplored research, while simultaneously expanding the existing research on framing in terms of food and health products, providing overall evidence of the important role of message framing in communication research.

### **4.3 Limitations and recommendations for further research**

In this chapter, I will address the limitations of this study, as it is important to acknowledge these constraints in order to provide a clear evaluation of this research.

The main limitation in this thesis is the sample size and consequently the research design that was applied. The questionnaire was completely finished by only 112 people, which might lead to a reduced statistical power and limited generalizability, meaning that the results might not accurately reflect the broader population. Quite a big portion of respondents, namely 55 of them, has not fully completed the questionnaire. We could argue that one of the main reasons for this could be the length of the questionnaire, which was a result of the experimental design used. Prior research on framing mainly used between-subject design as they also had access to a much larger sample size than in this thesis. Because I was expecting a smaller sample, I decided to use the within-subject approach. Although appropriate, this method comes with some disadvantages, which might have influenced the responses of the 112 people that did complete the questionnaire in full. One of the main disadvantages of this research design is that it often leads to order effects. One such example is carryover effect, which refers to the effect where testing subjects in one condition influences their behaviour in a later condition. This includes fatigue effect, which happens when participants perform a task differently in later conditions because they become bored or tired of performing a task repeatedly. We could assume that this happened at least to some extent in this study due to the length of it. Another problem with this design is that it is easier for respondents to get a hold of what is being researched based on earlier conditions and consequently guess the hypothesis. This might also lead to them modifying their answers and potentially biasing or invalidating the results of this survey. In order to avoid this, I would suggest replicating the study on a larger sample and using a between-subject design where participants would be randomly assigned one of the eight possible versions of the advertisement.

Another limitation is the products chosen for the stimuli. Despite the fact that the two products I have chosen have already been used in other studies separately, they fall into different categories - one could be considered a health product and the one a food product, which might mediate the results. Therefore, in order to cross-validate the findings, the work should be replicated with a larger variety of products. Moreover, the research is focused on two fictitious brands, which might not yield the same results when generalized to well-known brands (Chang, 2007). Another limitation could be the fact that the ads were not

presented in a hypothetical setting instead of a common, real-life context (such as a paper or a magazine), as this might have directed the participants' attention to towards the advertisement. When seeing such ads in actual magazines, several other distractions might be present, leading to more muted responses. Besides that, future research should also focus on the packaging design and familiarity of the advertised products, since these could also impact consumer's choices (Kauppinen-Räsänen et al. 2012). Furthermore, already existing attitudes towards a product or a brand may affect choices, consequently it is essential to take into consideration the individual preferences towards a product. Additionally, other important variables, such as regulatory focus (Lee et al. 2018), gender differences (Putrevu, 2010; Rothman, 1993), prior knowledge (Shan et al. 2020) and previous experience (Jasper et al., 2014; Levin & Gaeth, 1988) have shown to moderate the framing effect and have an effect on the consumer's responses. None of these contextual factors have been considered in this thesis, therefore I'd call for these aspect to be incorporated into future research.

## 5. CONCLUSION

Despite the assumption that a rational decision maker is one who makes the same decision regardless of how information is presented, this is shown to not always be the case. Humans usually lack knowledge, time, resources and skills to be making rational decisions and rather apply mental shortcuts or heuristics to save effort. This can result in biases, such as framing bias, first explored by Kahneman and Tversky, which assumes that individuals' decisions differ based on how the information is presented. While this bias and its effect on individual's behaviour have been well researched across literature, results often showed that there is no uniform approach that would fit all the contexts.

These inconsistencies across literature paved the way for this thesis, in which five hypotheses aimed to find out how positive and negative frames affect attitude towards product, purchase intention and quality perception in the case of attribute versus goal framing and in the case of utilitarian versus hedonic products. Two of the hypotheses were supported while the rest were partially supported. The results indicate consistent frame preferences for attribute framing, where positive frames, compared to the negative ones, generated higher scores in all three researched variables measuring consumer purchase behaviour. In the case of goal framing, negative frames generated overall higher purchase intention and quality scores among participants, whereas no significant difference was observed in the attitude domain.

On the product level, results suggest that for hedonic products, consumers tend to be more persuaded by the positive frames as they generated higher scores in all three researched dimensions. The results for the utilitarian product were the most inconsistent. On the attitude level, positive frames were preferred, whereas quality scores were higher when the messages were framed negatively. In the case of purchase intention, no significant differences were observed between the positive and negative frames.

Inconsistencies in this research could be explained by some of the limitations in this study, such as the small sample size and the type of experimental design used, both possibly affecting the reliability of the results. Moreover, literature points out that there are various possible moderators which affect the frame preferences, such as regulatory focus, prior knowledge and consumer characteristics. Future research should thus consider using a bigger sample and a between-subject design in order to prevent order effects, as well as consider including the moderating variables.

Message framing has been proposed across literature as well as real-life campaigns as a valuable tool for advertisers to enhance the effectiveness of advertisements and shape consumer behaviour. This thesis extends on the prior research of the framing effect by making a framing type and product type distinction. The findings are especially relevant for advertising practitioners since one of the key issues for the advertiser is choosing how to construct and word the advertising content for the consumer. The results of this study bear important implications on how framing can influence consumer behaviour and shape their perception towards a product, providing good guidance on what framing cues to utilize in an advertising campaign in order to better the overall perception and heighten the purchase intention of a product.

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## **APPENDICES**





## Appendix 1: Povzetek

Zaradi zapletenega, z informacijami preplavljenega sveta, v katerem primanjkuje časa, so človeški možgani optimizirali svoje miselne procese z uporabo bližnjic oziroma hevristik, ki nam pomagajo pri relativno hitrem sprejemanju odločitev in reševanju težav.

Na podlagi del Simona (1957) ter Kahnemana in Tverskega (1974) je znano, da potrošniki niso popolnoma racionalni, kar lahko privede do številnih nezavednih napak v razmišljanju, imenovanih kognitivne pristranskosti. Ena od takšnih pristranskosti je tudi učinek uokvirjanja, katerega temelje sta prva postavila Kahneman in Tversky s teorijo izgledov (1979) in t.i. »problemu azijske bolezni« (1981), ki sta nakazovali spremembo preferenc zaradi predstavitve problema na različne načine. V naslednjih desetletjih so učinek uokvirjanja in njegovo moč drobnih jezikovnih razlik pri uravnavanju odločanja raziskovali na različnih področjih in v različnih kontekstih. Več študij ga je povežalo tudi z oglaševanjem, da bi ugotovili, kakšno je človekovo vedenje pri izbiri, ko se sooči z določenim okvirjem in ga uporabili kot strategijo oglaševalskega komuniciranja.

Kljub trdnim teoretičnim okvirom, ki pojasnjujejo, zakaj določeni okvirji delujejo bolje in napovedujejo, kateri so najučinkovitejši, pa si ugotovitve raziskav niso popolnoma enotne in mnogokrat tudi nasprotujoče.

Namen tega magistrskega dela je bil zato teoretično in empirično preučiti kako različni okvirji vplivajo na nakupno vedenje potrošnikov. Natančneje, cilj je raziskati, kako atributno in ciljno uokvirjanje ter vrsta izdelka vplivajo na zaznavanje kakovosti, nakupno namero in odnos do izdelka, ter tako pomagati razumeti, kako ustvariti učinkovito sporočilo za tržno komuniciranje.

Magistrsko delo torej išče odgovore na naslednja raziskovalna vprašanja:

1. Kateri okvir v primeru atributnega načina uokvirjanja povzroči višjo nakupno namero, boljši odnos do izdelka ter boljšo percepcijo kakovosti izdelka;
2. Kateri okvir v primeru ciljnega načina uokvirjanja povzroči višjo nakupno namero, boljši odnos do izdelka ter boljšo percepcijo kakovosti izdelka;
3. Kateri okvir v primeru utilitarne izdelka povzroči višjo nakupno namero, boljši odnos do izdelka ter boljšo percepcijo kakovosti izdelka;
4. Kateri okvir v primeru hedonističnega izdelka povzroči višjo nakupno namero, boljši odnos do izdelka ter boljšo percepcijo kakovosti izdelka.

V empiričnem delu je bila izvedena kvantitativna raziskava, kateri je sodelovalo 112 udeležencev in je bila izvedena preko spletne strani 1KA. Najprej sem analizirala demografske značilnosti in življenjske navade udeležencev, nato pa s pomočjo osmih fiktivnih oglasov pridobila odgovore glede njihovega nakupnega vedenja, ki sem jih uporabila za testiranje petih hipotez. Dve hipotezi sta bili potrjeni, tri pa deloma potrjene.

Rezultati nakazujejo preferenco pozitivnih okvirjev v primeru atributnega uokvirjanja, saj so pozitivni okvirji v primerjavi z negativnimi, ustvarili višje ocene vseh treh raziskovanih spremenljivk. V primeru ciljnega uokvirjanja pa so negativni okvirji ustvarili splošno višjo oceno kakovosti in nakupno namero v primerjavi s pozitivnimi okvirji.

Na ravni izdelka rezultati kažejo, da v primeru hedonističnega izdelka, potrošnika bolj prepričajo pozitivni okvirji, saj so ti ustvarili višje ocene v vseh treh raziskovanih dimenzijah. Rezultati za utilitaren izdelek so bili manj enotni. V primeru nakupne namere ni bilo opaziti bistvenih razlik med pozitivnim in negativnim okvirjem. Na ravni odnosa do izdelka so bili bolje ocenjeni pozitivni okvirji, medtem ko je bila percepcija kakovosti višja v primeru negativnega okvirja.

To delo ima teoretične in praktične implikacije. Delo temelji na ugotovitvah teorije izgledov in pojasnjuje nedoslednosti v raziskavah modela atributnega in ciljnega uokvirjanja na področju vedenja potrošnikov. Poudarja tudi pomen razlikovanja vrste izdelka v kontekstu uokvirjanja in prispeva k doslej premalo raziskani tematiki, hkrati pa razširja obstoječe raziskave o uokvirjanju z vidika živilskih in zdravstvenih izdelkov. Ugotovitve te raziskave imajo pomemben pomen za menedžerje in oglaševalce, saj zagotavljajo smernice za učinkovito oblikovanje oglasnih sporočil z namenom posredovanja vrednosti izdelka, hkrati pa odpirajo prostor za nadaljnje raziskave te tematike.

## **Appendix 2: Questionnaire**

**Q1 - Please specify your year of birth.** \_\_\_\_\_

**Q2 - Please specify your gender.**

- ☐ Female
- ☐ Male
- ☐ Other / Prefer not to say

**Q3 - Please specify your marital status.**

- ☐ Single
- ☐ In a domestic partnership
- ☐ Married
- ☐ Widowed
- ☐ Divorced
- ☐ Separated

**Q4 - Please specify the highest degree or level of education you have completed.**

- ☐ Primary school
- ☐ Some high school
- ☐ High school
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Ph.D.
- ☐ Prefer not to say

**Q5 - Please specify your monthly net income (in EUR).**

- ☐ less than 500€
- ☐ 500€to 999€
- ☐ 1000€to 1499€
- ☐ 1500€to 1999€

- ☐ 2000€to 2499€
- ☐ 2500€to 2999€
- ☐ 3000€to 3499€
- ☐ 3500€or over

**Please answer the following statements about your lifestyle habits.**

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**Q6 - I make an effort to eat a healthy and well-balanced diet**

- ☐ Yes
- ☐ No

**Q7 - I exercise moderately intensely, at least 30 minutes, three days a week**

- ☐ Yes
- ☐ No

**Q8 - I consume chocolate**

- ☐ Yes
- ☐ No

**Q9 - Why do you not consume chocolate?**

- ☐ I don't like the taste
- ☐ Because of its nutritional value
- ☐ I have an allergy
- ☐ Other:

**Q10 - How often do you consume chocolate?**

- ☐ Daily
- ☐ Weekly
- ☐ Once a fortnight
- ☐ Monthly
- ☐ Quarterly

**Q11 - Why do you typically consume chocolate?**

- ☐ To satisfy hunger
- ☐ To indulge in it
- ☐ To reward myself
- ☐ To satisfy cravings
- ☐ Out of boredom
- ☐ Other:

**Q12 - I use sunscreen**

- ☐ Yes
- ☐ No

**Q13 - Why do you not use sunscreen?**

- ☐ It does not protect my skin from burning
- ☐ It causes skin irritation
- ☐ I don't like the formula
- ☐ I don't find it necessary
- ☐ Other:

**Q14 - How often do you use sunscreen?**

- ☐ Daily, regardless of the weather
- ☐ Often, but not daily
- ☐ Only when it's sunny
- ☐ Rarely

**Q15 - What SPF do you typically use?**

- ☐ < 15
- ☐ 15
- ☐ 30

☐ 50

☐ 50+

**Q16 - What is your reason for using sunscreen?**

- ☐ Preventing sunburn
- ☐ Preventing skin-cancer
- ☐ Preventing premature ageing
- ☐ Limiting the appearance of sunspots
- ☐ Preventing sun allergy

**You're about to see several advertisements. Please look at each thoroughly and then for each of the provided statements, evaluate the extent to which you agree with the statement on a 5-point scale meaning: 1 = completely disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = completely agree.**

---

**Q17 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is effective.					
<b>Q17c</b>	The product is helpful.					
<b>Q17d</b>	The product is practical.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

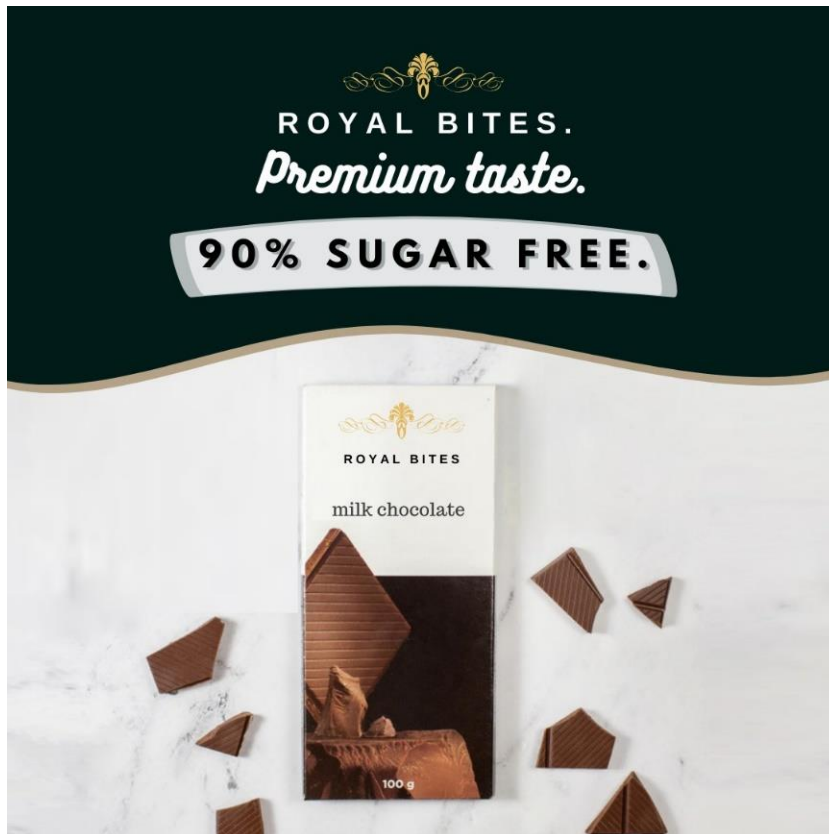
**Q18 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is effective.					
<b>Q17c</b>	The product is helpful.					
<b>Q17d</b>	The product is practical.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					



**Q19 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is fun.					
<b>Q17c</b>	The product is exciting.					
<b>Q17d</b>	The product is enjoyable.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

**Q20 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is fun.					
<b>Q17c</b>	The product is exciting.					
<b>Q17d</b>	The product is enjoyable.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

**Q21 - Please evaluate the statements about the following advertisement:**



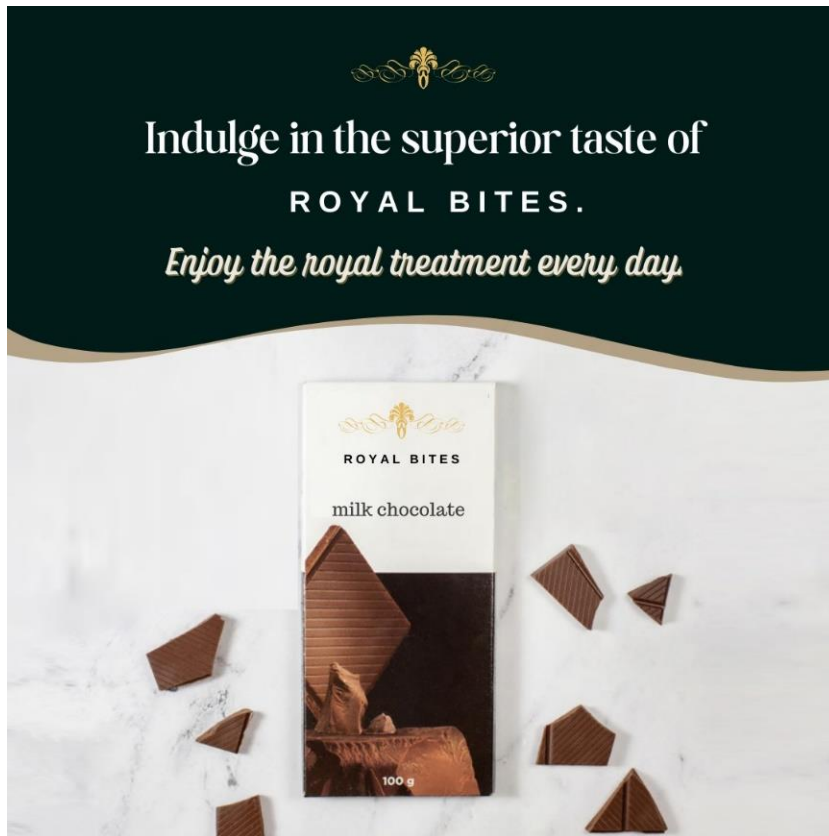
		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is effective.					
<b>Q17c</b>	The product is helpful.					
<b>Q17d</b>	The product is practical.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

**Q22 - Please evaluate the statements about the following advertisement:**



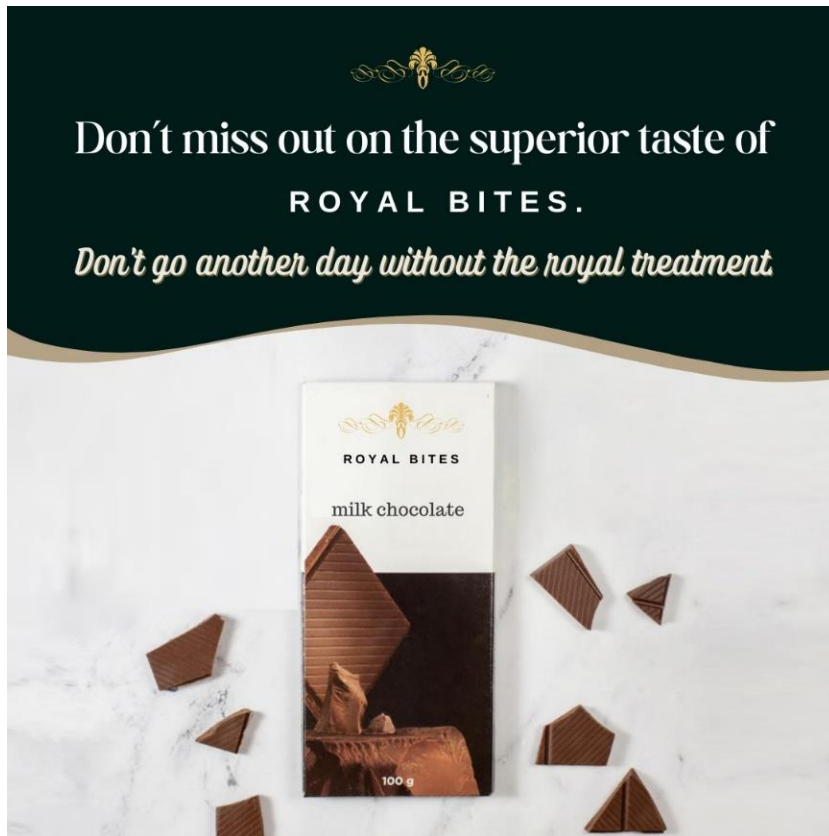
		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is effective.					
<b>Q17c</b>	The product is helpful.					
<b>Q17d</b>	The product is practical.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

**Q23 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is fun.					
<b>Q17c</b>	The product is exciting.					
<b>Q17d</b>	The product is enjoyable.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

**Q24 - Please evaluate the statements about the following advertisement:**



		1 - Completely disagree	2 - Disagree	3 - Neither agree nor disagree	4 - Agree	5 - Completely agree
<b>Q17a</b>	The product is of high quality.					
<b>Q17b</b>	The product is fun.					
<b>Q17c</b>	The product is exciting.					
<b>Q17d</b>	The product is enjoyable.					
<b>Q17e</b>	I would consider buying this product soon.					
<b>Q17f</b>	I would consider buying this product in the future.					
<b>Q17g</b>	I would advise my friend to buy this product.					

### Appendix 3: Results of hypothesis testing H1a

**H1a: In the case of attribute framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of attribute framing, the ads that are framed positively do not elicit a higher purchase intention, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of attribute framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.

*Table 1: Paired sample T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Purchase intention_Attribute framing, positive frame	3.6027	112	.91813	.08676
	Purchase intention_Attribute framing, negative frame	3.2054	112	1.20538	.11390

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Purchase intention_Attribute framing, positive frame & Purchase intention_Attribute framing, negative frame	112	.021	.822

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Purchase intention_Attribute framing, positive frame - Purchase intention_Attribute framing, negative frame	.39732	1.49946	.14169	.11656	.67808	2.804	111	.006

Source: Own work.



#### Appendix 4: Results of hypothesis testing H1b

**H1b: In the case of attribute framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of attribute framing, the ads that are framed positively do not elicit a better attitude towards product, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of attribute framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.

*Table 2: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Attitude_Attribute framing, positive frame	3.7321	112	.88003	.08316
	Attitude_Attribute framing, negative frame	3.0089	112	.86207	.08146

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Attitude_Attribute framing, positive frame & Attitude_Attribute framing, negative frame	112	.098	.303

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Attitude_Attribute framing, positive frame - Attitude_Attribute framing, negative frame	.72321	1.16989	.11054	.50416	.94227	6.542	111	.000

Source: Own work.

## Appendix 5: Results of hypothesis testing H1c

**H1c: In the case of goal framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of goal framing, the ads that are framed positively do not elicit a better attitude towards product, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of goal framing, the ads that are framed positively elicit a better attitude towards product, compared to the negatively framed ones.

*Table 3: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Attitude_Goal framing, positive frame	3.9509	112	.71961	.06800
	Attitude_Goal framing, negative frame	4.0313	112	.66536	.06287

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Attitude_Goal framing, positive frame & Attitude_Goal framing, negative frame	112	.521	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Attitude_Goal framing, positive frame - Attitude_Goal framing, negative frame	-.08036	.67967	.06422	-.20762	.04690	-1.251	111	.213

Source: Own work.

## Appendix 6: Results of hypothesis testing H1d

**H1d: In the case of goal framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of goal framing, the ads that are framed positively do not elicit a higher purchase intention, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of goal framing, the ads that are framed positively elicit a higher purchase intention, compared to the negatively framed ones.

*Table 4: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Purchase intention_Goal framing, positive frame	3.5313	112	.65168	.06158
	Purchase intention_Goal framing, negative frame	3.7768	112	.89503	.08457

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Purchase intention_Goal framing, positive frame & Purchase intention_Goal framing, negative frame	112	.387	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Purchase intention_Goal framing, positive frame - Purchase intention_Goal framing, negative frame	-.24554	.88020	.08317	-.41035	-.08073	-2.952	111	.004

Source: Own work.

## Appendix 7: Results of hypothesis testing H2a

**H2a: In the case of a utilitarian product, the positively framed ads elicit a more positive attitude towards product, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of a utilitarian product, the positively framed ads do not elicit a more positive attitude towards product, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of a utilitarian product, the positively framed ads elicit a more positive attitude towards product, compared to the negatively framed ones.

*Table 5: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Attitude_Utilitarian product, positive frame	3.6920	112	.95918	.09063
	Attitude_Utilitarian product, negative frame	3.4643	112	.78761	.07442

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Attitude_Utilitarian product, positive frame & Attitude_Utilitarian product, negative frame	112	.409	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Attitude_Utilitarian product, positive frame-Attitude_Utilitarian product, negative frame	.22768	.96069	.09078	.04780	.40756	2.508	111	.014

Source: Own work.



## Appendix 8: Results of hypothesis testing H2b

**H2b: In the case of a hedonic product, the positively framed ads elicit a more positive attitude towards product, compared to the negatively framed ones.**

- **H<sub>0</sub>:** In the case of a hedonic product, the positively framed ads do not elicit a more positive attitude towards product, compared to the negatively framed ones.
- **H<sub>1</sub>:** In the case of a hedonic product, the positively framed ads elicit a more positive attitude towards product, compared to the negatively framed ones.

*Table 6: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Attitude_Hedonic product, positive frame	3.9911	112	.86987	.08220
	Attitude_Hedonic product, negative frame	3.5759	112	.76291	.07209

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Attitude_Hedonic product, positive frame & Attitude_Hedonic product, negative frame	112	.249	.008

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Attitude_Hedonic product, positive frame - Attitude_Hedonic product, negative frame	.41518	1.00424	.09489	.22714	.60321	4.375	111	.000

Source: Own work.

## Appendix 9: Results of hypothesis testing H3a

**H3a: In the case of attribute framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.**

- **H<sub>0</sub>:** In the case of attribute framing, the ads that are positively framed do not generate a higher perception of quality of the product, compared to the negatively framed ads.
- **H<sub>1</sub>:** In the case of attribute framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

*Table 7: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Quality_Attribute framing, positive frame	3.5804	112	.80693	.07625
	Quality_Attribute framing, negative frame	3.3527	112	.84533	.07988

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Quality_Attribute framing, positive frame & Quality_Attribute framing, negative frame	112	.585	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Quality_Attribute framing, positive frame - Quality_Attribute framing, negative frame	.22768	.75304	.07116	.08668	.36868	3.200	111	.002

Source: Own work.

## Appendix 10: Results of hypothesis testing H3b

**H3b: In the case of goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.**

- **H<sub>0</sub>:** In the case of goal framing, the ads that are positively framed do not generate a higher perception of quality of the product, compared to the negatively framed ads.
- **H<sub>1</sub>:** In the case of goal framing, the ads that are positively framed generate a higher perception of quality of the product, compared to the negatively framed ads.

*Table 8: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Quality_Goal framing, positive frame	3.5804	112	.98993	.09354
	Quality_Goal framing, negative frame	3.7589	112	.74731	.07061

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Quality_Goal framing, positive frame & Quality_Goal framing, negative frame	112	.450	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Quality_Goal framing, positive frame - Quality_Goal framing, negative frame	-.17857	.93447	.08830	-.35354	-.00360	-2.022	111	.046

Source: Own work.

## Appendix 11: Results of hypothesis testing H4a

**H4a: The utilitarian product labelled with a negative frame is perceived as being of better quality, compared to the product labelled with a positive frame.**

- **H<sub>0</sub>:** The utilitarian product labelled with a negative frame is not perceived as being of better quality, compared to the product labelled with a positive frame.
- **H<sub>1</sub>:** The utilitarian product labelled with a negative frame is perceived as being of better quality, compared to the product labelled with a positive frame.

*Table 9: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Quality_Utilitarian product, positive frame	3.3952	112	.99256	.09379
	Quality_Utilitarian product, negative frame	3.5625	112	.81408	.07692

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Quality_Utilitarian product, positive frame & Quality_Utilitarian product, negative frame	112	.508	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Quality_Utilitarian product, positive frame - Quality_Utilitarian product, negative frame	-.17411	.90968	.08596	-.34444	-.00378	-2.026	111	.045

Source: Own work.



## Appendix 12: Results of hypothesis testing H4b

**H4b: The hedonic product labelled with a positive frame is perceived as being of better quality, compared to the product labelled with a negative frame.**

- **H<sub>0</sub>:** The hedonic product labelled with a positive frame is not perceived as being of better quality, compared to the product labelled with a negative frame.
- **H<sub>1</sub>:** The hedonic product labelled with a positive frame is perceived as being of better quality, compared to the product labelled with a negative frame.

*Table 10: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Quality_Hedonic product, positive frame	3.7455	112	.82744	.07819
	Quality_Hedonic product, negative frame	3.5759	112	.79755	.07536

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Quality_Hedonic product, positive frame & Quality_Hedonic product, negative frame	112	.541	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Quality_Hedonic product, positive frame - Quality_Hedonic product, negative frame	.16964	.77852	.07356	.02387	.31541	2.306	111	.023

Source: Own work,

### Appendix 13: Results of hypothesis testing H5a

**H5a: The utilitarian product labelled with a negative frame generates a higher purchase intention, compared to the product labelled with a positive frame.**

- **H<sub>0</sub>:** The utilitarian product labelled with a negative frame does not generate a higher purchase intention, compared to the product labelled with a positive frame.
- **H<sub>1</sub>:** The utilitarian product labelled with a negative frame generates a higher purchase intention, compared to the product labelled with a positive frame.

*Table 11: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Purchase intention_Utilitarian product, positive frame	3.4821	112	.90526	.08554
	Purchase intention_Utilitarian product, negative frame	3.5000	112	.80539	.07610

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Purchase intention_Utilitarian product, positive frame & Purchase intention_Utilitarian product, negative frame	112	.349	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Purchase intention_Utilitarian product, positive frame - Purchase intention_Utilitarian product, negative frame	-.01786	.97936	.09254	-.20123	.16552	-.193	111	.847

Source: Own work.

#### Appendix 14: Results of hypothesis testing H5b

**H5b: The hedonic product labelled with a positive frame generates a higher purchase intention, compared to the product labelled with a negative frame.**

- **H<sub>0</sub>:** The hedonic product labelled with a positive frame does not generate a higher purchase intention, compared to the product labelled with a negative frame.
- **H<sub>1</sub>:** The hedonic product labelled with a positive frame generates a higher purchase intention, compared to the product labelled with a negative frame.

*Table 12: Paired samples T-test*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Purchase intention_Hedonic product, positive frame	3.6518	112	.82155	.07763
	Purchase intention_Hedonic product, negative frame	3.4821	112	.75614	.07145

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Purchase intention_Hedonic product, positive frame & Purchase intention_Hedonic product, negative frame	112	.682	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Purchase intention_Hedonic product, positive frame - Purchase intention_Hedonic product, negative frame	.16964	.63158	.05968	.05139	.28790	2.843	111	.005

Source: Own work

## Appendix 15: Quality of measure

Construct	Measurement items (Question no. in the questionnaire)	Cronbach's alpha	AVE	Hypothesis
Purchase intention (Attribute framing, positive frame)	I would consider buying this product soon (Q17e, Q19e)	0.71	0.57	H1a
	I would consider buying this product in the future (Q17f, 19f)			
	I would advise my friend to buy this product. (Q17g, 19g)			
Purchase intention (Attribute framing, negative frame)	I would consider buying this product soon (Q18e, Q20e)	0.70	0.52	
	I would consider buying this product in the future (Q18f, Q20f)			
	I would advise my friend to buy this product. (Q18g, Q20g)			
Attitude (Attribute framing, positive frame)	The product is effective. (Q17b)	0.72	0.61	H1b
	The product is helpful. (Q17c)			
	The product is practical. (Q17d)			
	The product is fun. (Q19b)			
	The product is exciting. (Q19c)			
	The product is enjoyable. (Q19d)			
Attitude (Attribute framing, negative frame)	The product is effective. (Q18b)	0.71	0.58	
	The product is helpful. (Q18c)			
	The product is practical. (Q18d)			
	The product is fun. (Q20b)			
	The product is exciting. (Q20c)			
	The product is enjoyable. (Q20d)			

Construct	Measurement items (Question no. in the questionnaire)	Cronbach's alpha	AVE	Hypothesis	
Attitude (Goal framing, positive frame)	The product is effective. (Q21b)	0.71	0.55	H1c	
	The product is helpful. (Q21c)				
	The product is practical. (Q21d)				
	The product is fun. (Q23b)				
	The product is exciting. (23c)				
	The product is enjoyable. (23d)				
Attitude (Goal framing, negative frame)	The product is effective. (Q22b)	0.70	0.56		
	The product is helpful. (Q22c)				
	The product is practical. (Q22d)				
	The product is fun. (Q24b)				
	The product is exciting. (Q24c)				
	The product is enjoyable. (Q24d)				
Purchase intention (Goal framing, positive frame)	I would consider buying this product soon. (Q21e, Q23e)	0.71	0.60	H1d	
	I would consider buying this product in the future. (Q21f, Q23f)				
	I would advise my friend to buy this product. (Q21g, Q23g)				
Purchase intention (Goal framing, negative frame)	I would consider buying this product soon. (Q22e, Q24e)	0.70	0.59		
	I would consider buying this product in the future. (Q22f, Q24f)				
	I would advise my friend to buy this product. (Q22g, Q24g)				
Attitude (Utilitarian product, positive frame)	The product is effective. (Q17b, Q21b)	0.72	0.56	H2a	
	The product is helpful. (Q17c, Q21c)				
	The product is practical. (Q17d, Q21d)				
Attitude (Utilitarian product, negative frame)	The product is effective. (Q18b, Q22b)	0.70	0.53		
	The product is helpful. (Q18c, Q22c)				
	The product is practical. (Q18d, Q22d)				



Construct	Measurement items (Question no. in the questionnaire)	Cronbach's alpha	AVE	Hypothesis
Attitude (Hedonic product, positive frame)	The product is fun. (Q19b, Q23b)	0.71	0.55	H2b
	The product is exciting. (Q19c, Q23c)			
	The product is enjoyable. (Q19d, Q23d)			
Attitude (Hedonic product, negative frame)	The product is fun. (Q20b, Q24b)	0.73	0.61	
	The product is exciting. (Q20c, Q24c)			
	The product is enjoyable. (Q20d, Q24d)			
Quality (Attribute framing, positive frame)	The product is of high quality. (Q17a, Q19a)	0.71	0.54	H3a
Quality (Attribute framing, negative frame)	The product is of high quality. (Q18a, Q20a)	0.70	0.57	
Quality (Goal framing, positive frame)	The product is of high quality. (Q21a, Q23a)	0.70	0.56	H3b
Quality (Goal framing, negative frame)	The product is of high quality. (Q22a, Q24a)	0.70	0.53	
Quality (Utilitarian product, positive frame)	The product is of high quality. (Q17a, Q21a)	0.73	0.58	H4a
Quality (Utilitarian product, negative frame)	The product is of high quality. (Q18a, Q22a)	0.72	0.61	

Construct	Measurement items (Question no. in the questionnaire)	Cronbach's alpha	AVE	Hypothesis
Quality (Hedonic product, positive frame)	The product is of high quality. (Q19a, Q23a)	0.73	0.62	H4b
Quality (Hedonic product, negative frame)	The product is of high quality. (Q20a, Q24a)	0.74	0.62	
Purchase intention (Utilitarian product, positive frame)	I would consider buying this product soon. (Q17e, Q21e)	0.71	0.56	H5a
	I would consider buying this product in the future. (Q17f, Q21f)			
	I would advise my friend to buy this product. (Q17g, Q21g)			
Purchase intention (Utilitarian product, negative frame)	I would consider buying this product soon. (Q18e, Q22e)	0.72	0.58	
	I would consider buying this product in the future. (Q18f, Q22f)			
	I would advise my friend to buy this product. (Q18g, Q22g)			
Purchase intention (Hedonic product, positive frame)	I would consider buying this product soon. (Q19e, Q23e)	0.74	0.61	H5b
	I would consider buying this product in the future. (Q19f, Q23f)			
	I would advise my friend to buy this product. (Q19g, Q23g)			
Purchase intention (Hedonic product, negative frame)	I would consider buying this product soon. (Q20e, Q24e)	0.74	0.57	
	I would consider buying this product in the future. (Q20f, Q24f)			
	I would advise my friend to buy this product. (Q20g, Q24g)			

*Source: Own work.*

## Appendix 16: Relevant framing research overview

Author	Dependent variable	Type of framing	Type of stimuli	Moderators	Theory used	Findings
Borin et al. (2011)	Product quality, value, purchase intention	Goal	Apples, bar soap, mp3 headphones, paper	/	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979),</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981),</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	In all three measured variables, the positively framed environmental messages were perceived more positively than negative ones. Disparities between frames were notably smaller for products that had the smallest health impact.
Braun et al. (1997)	Quality, overall favourability	Attribute	Milk chocolate bar	Gender	<ul style="list-style-type: none"> <li>- Perceiver and communication interaction model (Taylor and Thompson, 1980)</li> </ul>	Respondents preferred the positively framed ad to the negatively framed one. A notable interaction between frame and gender was observed.

<b>Author</b>	<b>Dependent variable</b>	<b>Type of framing</b>	<b>Type of stimuli</b>	<b>Moderators</b>	<b>Theory used</b>	<b>Findings</b>
Burböck et al. (2019)	Purchase intention, product attitude, ad favourability	Attribute, goal	Toothpaste	/	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	In both framing conditions the positive frames generated better scores of all three researched dimensions, compared to the negatively framed messages.
Detweiler et al. (1999)	Attitude, intentions	Goal	Sunscreen	Initial plan to use the product	<ul style="list-style-type: none"> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>- Prevention vs. detection behaviour theory (Rothman &amp; Salovey, 1997)</li> </ul>	There was a significantly higher likelihood for sunscreen requests and usage by participants who were exposed to the brochures highlighting gains, compared to those exposed to loss frames. Those who had no initial plan to use the product were significantly more affected by gain frames..
Janiszewski et al. (2003)	Quality, favourability	Attribute	Pasta sauce	/	<ul style="list-style-type: none"> <li>- LSG framework (Levin et al., 1998)</li> <li>- Norm theory (Kahneman &amp; Miller, 1986)</li> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> </ul>	Consumers preferred the attribute information that was framed positively, compared to information framed in a negative way.

<b>Author</b>	<b>Dependent variable</b>	<b>Type of framing</b>	<b>Type of stimuli</b>	<b>Moderators</b>	<b>Theory used</b>	<b>Findings</b>
Jasper et al. (2014)	Attitude, intention	Goal	Sunscreen pamphlet	Previous experience	- LSG framework (Levin et al., 1998)	Results indicated a preference for loss frames. The framed message had a higher effect on those that did not use the product beforehand.
Kuo et al. (2019)	Advertisement preference, purchase intention	Goal	Utilitarian product: fat free yogurt  Hedonic product: ice cream	Product type, Regulatory focus	- The framing of decisions and the psychology of choice (Tversky & Kahneman, 1981) - LSG framework (Levin et al., 1998)	Negatively framed utilitarian product scored higher ad preference and purchase intention than the positively framed one, whereas positive frames were preferred in the case of the hedonic product. Regulatory focus moderated the framing effect and caused changes in preferences of food.
Kusumasondjaja (2018)	Attitude towards product, perceived quality, purchase intention	Attribute	Utilitarian product: packaged milk  Hedonic product: chocolate candy	Product type	- The framing of decisions and the psychology of choice (Tversky & Kahneman, 1981)	For the utilitarian product, negatively framed labels generated better attitudes and quality perception, whereas positive frames worked better for the hedonic product. Higher perceived product quality and better attitude led to increased purchase intent.

Author	Dependent variable	Type of framing	Type of stimuli	Moderators	Theory used	Findings
Lee et al. (2018)	Attitude toward ad, purchase intention	Goal	Utilitarian product: hair dryer  Hedonic product: music CD	Product type, regulatory focus	<ul style="list-style-type: none"> <li>- Regulatory focus theory (Higgins, 1997)</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	Negative frames caused a better attitude compared to the positive for the hedonic product, whereas there were no significant differences on purchase intent. For utilitarian products, positive frames had a stronger effect on attitude and purchase intent compared to negative framing,
Levin & Gaeth (1988)	Consumer judgement of taste, greasiness, quality	Attribute	Beef	Diagnostic product experience	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>- Information integration theory (Anderson, 1981)</li> </ul>	Product described as percent lean was seen as being overall better than the one described as percent fat. Strength of the framing effect significantly lessened when individuals tasted the product. Once product is rated as being unpleasant, it's not likely that a positive frame will lead to favourable evaluation.

<b>Author</b>	<b>Dependent variable</b>	<b>Type of framing</b>	<b>Type of stimuli</b>	<b>Moderators</b>	<b>Theory used</b>	<b>Findings</b>
Loke & Lau (1992)	Purchase intention	Attribute	Hamburger patty	Mathematical experience	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> </ul>	Overall preference for positive frames. Individuals with little mathematical experience were more likely to accept the framing strategy than those with more experience. Both groups were influenced by framing to the same extent.
Meyerowitz & Chaiken (1987)	Attitudes, intentions, and behaviours	Goal	Breast self-examination pamphlet	/	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- Protection motivation theory (Rogers, 1975)</li> <li>-</li> </ul>	Messages framed as a loss generated better scores of all three researched variables.
Moon et al. (2016)	Intention, willingness to pay	Goal	Gasoline, biofuel	/	<ul style="list-style-type: none"> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	The pamphlets framed in terms of loss were better at eliciting changes in intentions to engage in pro-environmental actions as well as willingness to pay.
Orth et al. (2005)	Attitude toward the advertisement and the brand, purchase intention	Goal	Apples, bottled water	/	<ul style="list-style-type: none"> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>-</li> </ul>	Positive frames generated overall higher scores of all researched variables, compared to negatively framed messages.

<b>Author</b>	<b>Dependent variable</b>	<b>Type of framing</b>	<b>Type of stimuli</b>	<b>Moderators</b>	<b>Theory used</b>	<b>Findings</b>
Putrevu (2010)	Attitude towards the brand, attitude towards the ad, purchase intent	Attribute, Goal	Airline pamphlet	Involvement, need for cognition, gender	<ul style="list-style-type: none"> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	Positive frames were preferred when attribute framing was applied to a message, whereas negative messages evoked better attitudes and intent to purchase the product. Women were more favourable towards positive frames.
Rothman et al. (1999)	Intention	Goal	Mouthwash	/	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> </ul>	The strongest intent to purchase the product was observed in the case of the message being gain-framed.
Rothman (1993)	Intention	Goal	Skin cancer pamphlet	Gender	<ul style="list-style-type: none"> <li>- Prospect theory (Kahneman &amp; Tversky, 1979)</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> </ul>	The pamphlet framed in terms of gains, compared to the one framed in terms of losses, resulted in more requests for sunscreen. This was only the case for women; framing did not produce a similar effect on men's preferences.



<b>Author</b>	<b>Dependent variable</b>	<b>Type of framing</b>	<b>Type of stimuli</b>	<b>Moderators</b>	<b>Theory used</b>	<b>Findings</b>
Shan et al. (2020)	Attitude, purchase intention	Goal	Organic lettuce	Product knowledge	<ul style="list-style-type: none"> <li>- Theory of bounded rationality (Simon, 1957)</li> <li>- LSG framework (Levin et al., 1998)</li> <li>- Theory of Planned Behaviour (TPB) and Theory of Reasoned Action (TRA) (Fishbein &amp; Ajzen 1975, Ajzen &amp; Fishbein 1980).</li> </ul>	The negatively framed message induced a more favourable attitude and purchase intention than the message framed in a positive way. Framing had a bigger effect on consumers who lacked product knowledge.
Wu & Cheng (2011)	Attitude towards the product, purchase intent, willingness to pay	Attribute	Electronic translator	Subjective knowledge	<ul style="list-style-type: none"> <li>- Theory of bounded rationality (Simon, 1957)</li> <li>- The framing of decisions and the psychology of choice (Tversky &amp; Kahneman, 1981)</li> <li>- LSG framework (Levin et al., 1998)</li> </ul>	Positively described product message caused higher scores in the researched variables compared to the negatively framed message. Consumers that lacked prior knowledge were more likely to be influenced by framing.

*Source: Own work.*