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# **The causal influence of hedonic visual brand cues on Generation Z's impulsive food buying**

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A thesis submitted in partial fulfilment of the requirement of Edinburgh Napier  
University for the award of Doctor of Philosophy

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## Declaration

I hereby declare that the work presented in this thesis is solely carried out by myself at Edinburgh Napier University, except where due acknowledgement is made and that it has not been submitted for any other degree.

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12/10/2020

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Date

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## **Abstract**

Brands' reward-triggering visual cues, conceptualised in this research as hedonic visual brand cues, may be regarded as conditioned stimuli that trigger consumers' approach behaviour. Increasing research suggests that exposure to proximate rewards, such as rewarding visual cues, may activate impulsive buying. Nevertheless, additional research is needed to determine the nature of the causal entities at play when Generation Z is exposed to hedonic visual brand cues. As a result, this study aims to identify and explore the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying.

Focusing on the food domain, this project is the first comprehensive investigation of (a) the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying and (b) the causal factors and generative mechanisms underpinning this relationship. Consistent with the tenets of critical realism, the methodology adopts a triangulated multi-method qualitative approach: participant observation of purchase behaviour; semi-structured interviews aided by photo elicitation and projective techniques; and online conversations via social media. The methodology has been designed to progressively deepen the holistic understanding of the studied phenomenon.

The findings of this study suggest several theoretical and practical implications. Specifically, 28 causal factors and six causal mechanisms have been found capable of facilitating Generation Z's impulsive buying when food shopping. The findings propose (a) a conceptual framework that incorporates the causal factors and mechanisms influencing Generation Z's impulsive food buying and (b) practical implications to guide practitioners to maximise the effectiveness of brand strategies targeting Generation Z's impulsive food buying. Therefore, the insights gained from this study may be of assistance to academics and practitioners interested in understanding the antecedents of Generation Z's impulsive food buying.

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# 1 Introduction

This thesis explores the causal influence of hedonic visual brand cues exposure on Generation Z's impulsive buying in the food domain. Specifically, this study assesses (a) the causal influence of hedonic visual brand cues exposure on Generation Z's impulsive food buying and (b) the causal factors and mechanisms underpinning this relationship. The first chapter examines the background of the study and rationale for research, aim and objectives, adopted methodology and a summary of each chapter.

## 1.1 Background and rationale

Impulsive buying is a major area of interest within the Marketing field (Iyer, Blut, Xiao, & Grewal, 2019; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Zheng, Men, Yang, & Gong, 2019). To date, several studies have adopted the original definition of impulsive buying provided by Rook (1987, p. 191), who states that "impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The impulse to buy is hedonically complex and may stimulate emotional conflict". Recently, considerable literature (Aragoncillo & Orús, 2018; Chan, Cheung, & Lee, 2017; Dey & Srivastava, 2017; Fenton-O'Creevy, Dibb, & Furnham, 2018; Khachatryan et al., 2018; Sofi & Najjar, 2018; Xiao & Nicholson, 2013; Zhang, Xu, Zhao, & Yu, 2018) has built on Sharma Sivakumaran and Marshall's (2010, p. 277) definition arguing that impulsive buying is "a sudden, compelling, hedonically complex purchase behavior in which the rapidity of the impulse purchase decision precludes any thoughtful, deliberate consideration of alternatives or future implications".

There is a growing body of literature that recognises the significance of several triggers on impulsive buying. As a result, extensive research has focused on the factors and mechanisms influencing consumers' impulsivity (Boutsouki, 2019; Dhaundiyal & Coughlan, 2016; Flamand et al., 2016; Iyer et al., 2019). Nonetheless, given the complexity and the multidimensional nature of the

phenomenon studied, additional research is needed. For instance, in line with a recent meta-analytic review of previous research on the subject, “the synergistic effects of various communication and promotional elements on impulse buying warrant further exploration” (Iyer et al., 2019, p. 18).

Considering the hedonically complex nature of impulsive buying (i.e. reward seeking), researchers have shown an increased interest in analysing impulsive purchases in light of consumers’ desire for hedonic consumption and motivations (Chang, Eckman, & Yan, 2011; Dey & Srivastava, 2017; Kpossa & Lick, 2019; Lo, Lin, & Hsu, 2016; Tifferet & Herstein, 2012; Zhang, Xu, Zhao, & Yu, 2018; Zheng et al., 2019). Nevertheless, further research is needed to determine the role of hedonic involvement within impulsive buying (Santini et al., 2019; Sofi, 2018; Vieira et al., 2018), especially with young demographics (Dey & Srivastava, 2017). For instance, Zhang, Xu, Zhao, and Yu (2018, p. 537) state that “little research sheds light on the antecedents of hedonic value”, which may be beneficial in explaining impulsive buying behaviour.

Similarly, in recent times, researchers have shown an increased interest in analysing a new consumer segment, Generation Z (Kamenidou et al., 2018; Kamenidou, Mamalis, Pavlidis, & Bara, 2019; Özkan, 2017; Priporas, Stylos, & Fotiadis, 2017; Sotodehasl, Amirahmadi, Ghorbani, Masoudian, & Samaei, 2019; Vojvodić, 2019; Vukić, 2019). (Kamenidou et al., 2018)(Kamenidou et al., 2018)(Kamenidou et al., 2018)(Kamenidou et al., 2018)For instance, as stated by Vojvodić (2019, p. 106) “contrary to other generational cohorts, not much is known about Generation Z in the retail context”. Although extensive research has been carried out on impulsive buying, little is known about the causal factors and mechanisms affecting impulsive buying of this new segment of consumers, especially when motivated by hedonism. This is consistent with the findings highlighted by Priporas et al. (2017, p. 376) that state that Generation Z is characterised by “a desire to temporarily escape the realities they face”. In this sense, hedonic consumption, distinguished by feelings of escapism (Dey & Srivastava, 2017; Koles et al., 2018; Lavack, 2008), may be particularly

meaningful for this generation of consumers. As Generation Z appears to have different preferences from previous generations, investigating their purchase behaviour represents a suitable opportunity for extending current knowledge (Özkan, 2017; Priporas et al., 2019). Furthermore, a deficiency of marketing studies examining Generation Z has been observed by several authors (Kamenidou et al., 2018; Kamenidou, Mamalis, Pavlidis, & Bara, 2019; Priporas et al., 2019; Priporas, Stylos, & Fotiadis, 2017). As Priporas et al. (2017, p. 375) suggests, “there is a dearth of empirical studies in the field of marketing” focused on Generation Z.

Previous research has also established the significance of visual cues within consumers’ responses (Forzano et al., 2010; Khachatryan et al., 2018; Knoeferle et al., 2017; Kpessa & Lick, 2020; Van Rompay et al., 2014; Zheng et al., 2019). Nevertheless, the mechanisms that underpin the relation between visual brand cues exposure and impulsive buying are not fully understood (Khachatryan et al., 2018; Knoeferle et al., 2017). Recently, researchers have also shown an increased interest in the influence of the multisensory interaction of marketing stimuli on consumers’ shopping experience (Eklund & Helme Falk, 2018; Kauppinen-Räsänen & Jauffret, 2018; Wiedmann et al., 2018). Nonetheless, no single study exists which explores the causal influence of hedonic visual brand cues on Generation Z’s impulsive food buying. As stated by Vojvodić (2019, p. 112),

When it comes to Generation Z, not much is known about the impact of store atmospherics on behavioural intention and in-store customer shopping experience. Therefore, further research should deal with the influence of retail store environmental cues on Generation Z consumers’ behaviour.

As a result, this study explores and explains for the first time the causal factors and mechanisms influencing Generation Z’s impulsive food buying after hedonic visual brand cues exposure. Specifically, the following research questions are investigated in this study:

1. Which causal factors and mechanisms affect the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying?
2. How do the causal factors and mechanisms in place affect the relationship between hedonic visual brand cues' exposure and Generation Z's impulsive food buying?
3. Why do the causal factors and mechanisms in place underpin the relationship between hedonic visual brand cues' exposure and Generation Z's impulsive food buying?

## **1.2 Aim and objectives**

This thesis aims to identify, explore and explain the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. With the purpose of accomplishing the aforementioned aim, the subsequent objectives have been established:

1. To critically evaluate extant literature to conceptualise the causal factors and mechanisms influencing Generation Z's impulsive food buying.
2. To design a methodology aimed at identifying, exploring and explaining the causal factors and mechanisms affecting participants' impulsive food buying following hedonic visual brand cues exposure.
3. To investigate which, how, and why, causal factors and mechanisms influence participants' impulsive food buying.
4. To develop, on the basis of the findings:
  - i. An explanatory theoretical model that incorporates the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying.

- ii. Practical implications to guide practitioners towards maximising the effectiveness of visual brand communication strategies and Generation Z's impulsive food buying.

### **1.3 Methodology**

The methodology adopted in this investigation is consistent with the tenets of critical realism. To summarise, as Easton (2010, p. 119) argues, “critical realism assumes a transcendental realist ontology, an eclectic realist/interpretivist epistemology and a generally emancipatory axiology”. Critical realists achieve knowledge through the “examination of the conditions, possibilities, nature and limits of knowledge” (Danermark et al., 2019, p. 206). As Easton (2010, p. 121) argues “the most fundamental aim of critical realism is explanation; answers to the question “what caused those events to happen?”. Consequently, critical realists’ focus is not only on the phenomenon itself, but also on the generative mechanisms that caused it (Belfrage & Hauf, 2017). In line with this philosophical standpoint, this thesis taps into the perceptions and reactions of the research participants to further illuminate the causal relationship between hedonic visual brand cues exposure and Generation Z’s impulsive food buying.

This study adopts a retroductive research approach which is informed by critical realism. Retroduction focuses on moving backwards, on examining a given phenomenon by understanding what its causes are (Bhaskar, 1986; Easton, 2010). These causes in the current research are represented by factors and mechanisms that influence Generation Z’s impulsive food buying. Consistent with the chosen philosophical position, and related research approach, the research design of this investigation consists in a triangulated multimethod qualitative case study. Case study research is particularly relevant when ‘how’ and ‘why’ questions are investigated (Yin, 2014), which is the focus of this study. Furthermore, case study research was chosen for its potential in collecting in-depth information of a given phenomenon in its context.

Considering the complexity of the phenomenon studied, a multimethod qualitative approach was adopted to achieve triangulation of data. The research data in this thesis are drawn from three main sources: observation of participant shopping behaviour in supermarkets, semi structured interviews aided by photo elicitation and projective techniques, and online conversation via social media (Facebook Messenger and WhatsApp). During data analysis, a holistic approach is utilised, triangulating the evidence collected from the three abovementioned methods to increase the findings' trustworthiness. Data are first coded and themed through NVivo and then they are discussed comparing and contrasting them with existing literature.

#### **1.4 Contribution to knowledge and practice**

This research contributes to existing knowledge by identifying, exploring and explaining the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying in the context of food. These results add to the rapidly expanding field of impulsive buying (Iyer, Blut, Xiao, & Grewal, 2019; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Zheng, Men, Yang, & Gong, 2019) with a focus on the food context. Moreover, this work contributes to existing knowledge of sensory marketing by providing a focus on visual hedonic brand cues (Eklund & Helme Falk, 2018; Forzano et al., 2010; Kauppinen-Räsänen & Jauffret, 2018; Khachatryan et al., 2018; Knoeferle, Knoeferle, Velasco, & Spence, 2017; Krossa & Lick, 2020; Van Rompay, Fransen, & Borgelink, 2014; Wiedmann, Labenz, Haase, & Hennigs, 2018; Zheng et al., 2019). Furthermore, this study sheds new light on the role of hedonic involvement within impulsive food buying (Dey & Srivastava, 2017; Santini et al., 2019; Sofi, 2018; Vieira, Santini, & Araujo, 2018). Finally, this study contributes to our understanding of the shopping behaviour of a group of consumers that requires further investigation: Generation Z (Kamenidou et al., 2018; Kamenidou, Mamalis, Pavlidis, & Bara, 2019; Özkan, 2017; Priporas, Stylos, & Fotiadis, 2017; Sotodehasl, Amirahmadi, Ghorbani, Masoudian, & Samaei, 2019; Vojvodić, 2019; Vukić, 2019).



Specifically, 28 causal factors and six causal mechanisms enhancing Generation Z's impulsive food buying have been for the first time identified, explored and explained. Furthermore, the causal factors have been categorised into external (i.e. found in the shopping environment) and internal (i.e. arising within participants). Both the external and internal causal factors, in turn, have been categorised into direct triggers (i.e. triggering directly impulsive food buying) and indirect triggers (i.e. triggering impulsive food buying by interacting with - or being mediated by - direct triggers). Finally, direct triggers were divided into proximal (i.e. easily accessible by participant) and distal (i.e. requiring further elicitation and probing).

Understanding this phenomenon does not merely contribute to academic knowledge, but it also represents a practical opportunity for practitioners interested in understanding more fully and targeting Generation Z. As a result, this project contributes to existing literature by developing a conceptual model that identifies the causal factors and generative mechanisms affecting Generation Z's impulsive food buying after exposure to hedonic visual brand cues. Furthermore, following the identification of the causal factors and generative mechanisms at play, this research provides organisations a more detailed insight into Generation Z's impulsive buying to help maximise future visual brand strategies targeting Generation Z. Specifically, brand managers and retailers interested in enhancing Generation Z's impulsive food buying may take advantage of the following causal factors and mechanisms in their visual communication: external causal factors (direct and indirect); internal causal factors (direct and indirect) and causal mechanisms.

## **1.5 Structure of the thesis**

A summary of each chapter of this investigation is provided below:

### Chapter 1: Introduction

In this chapter an overview of the whole thesis is provided to the reader. First, a background analysis and research rationale of the selected topic are discussed. Then, the aim and related objectives are provided. Finally, the research approach is clarified, and an overview of each chapter is offered.

### Chapter 2: Literature review

Chapter two sets the theoretical dimensions of the research, critically analysing the emerging themes identified in the literature to address the research aim. Namely, hedonic brand cues, consumers' decision-making and consumers' impulsivity are discussed. In addition, conceptual linkages between the aforementioned emerging themes are highlighted and research questions are formulated.

### Chapter 3: Methodology

The third chapter is concerned with the methodology adopted in this investigation. This chapter begins by discussing the adopted philosophical position specifying the research ontological, epistemological and axiological positions. Furthermore, the adopted research design, methods employed and sampling strategy are examined. Finally, the remaining part of the chapter discusses the data analysis strategy, considerations on research quality and ethical implications.

### Chapter 4: Research findings

The fourth chapter presents the findings of the research. After coding the data obtained from the triangulated multi-method qualitative approach adopted in this research through NVivo, themes and sub-themes have been developed and

analysed specifying whether the related evidence is retrieved from observations, interviews and online conversations.

#### Chapter 5: Discussion

The fifth chapter compares and contrasts the findings of this investigation with existing literature. A discussion of the identified causal factors and mechanisms is offered throughout this chapter by providing a theoretical understanding focused on explanation. Furthermore, this chapter lays the foundation for the development of the conceptual framework obtained from this research.

#### Chapter 6: Conclusion

This chapter begins by revisiting the aim and objectives of the current research. It then goes on to highlight the theoretical and practical contributions of this investigation. The remaining part of the chapter discusses the methodological contribution, research limitations and suggested avenues for future research.

### **1.6 Summary**

This chapter has provided an introduction to this investigation. The main issues addressed in this chapter are: background and rationale of the investigation; aim and objectives; adopted methodology and structure of the thesis. The following chapter offers a critical review of existing literature providing the theoretical foundations of this research.

## 2 Literature Review

The aim of this chapter is to present a critical review of existing literature on hedonic brand cues, consumers' decision-making and impulsive behaviour in order to identify relevant theories, concepts and models that can provide a theoretical basis for the causal factors and mechanisms under scrutiny in the primary research. These three building blocks of the literature review fit within an overarching theoretical construct, the Stimulus-Organism-Response (SOR) model (Figure 1).

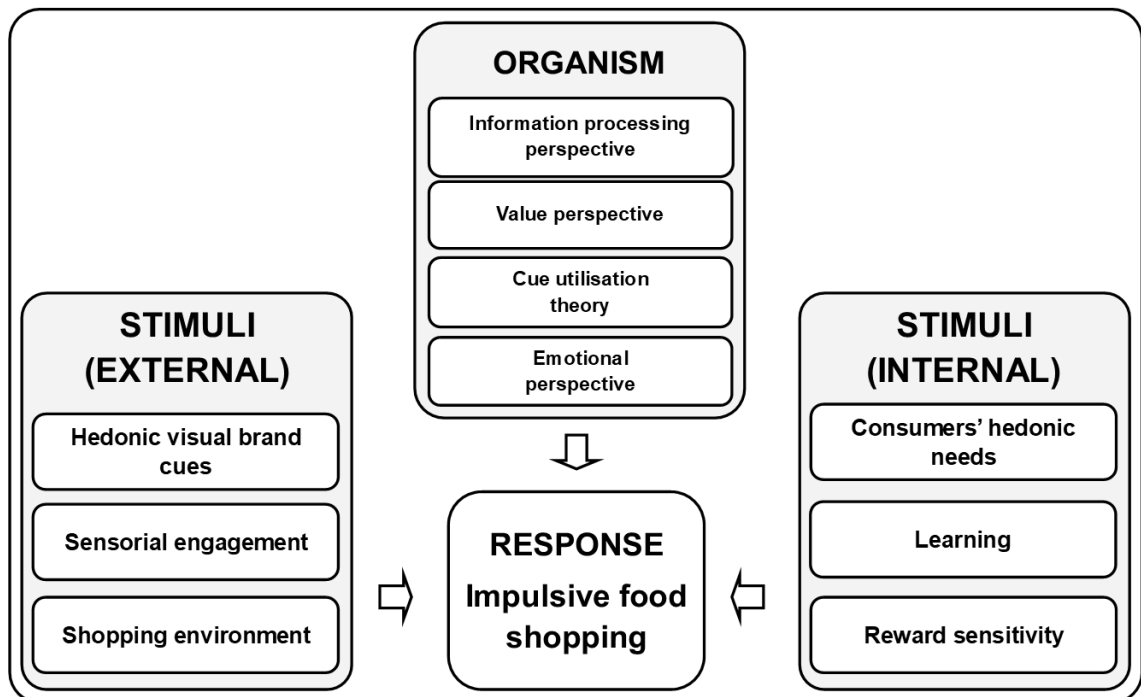


Figure 1: Literature structure based on SOR (Zheng et al., 2019)

Increasing research in Marketing is adopting the SOR model to examine the effect of certain stimuli on consumers' responses (Chan, Cheung, & Lee, 2017; Kim, Park, Lee, & Choi, 2016; Ladhari, Souiden, & Dufour, 2017; Petermans, Kent, & Van Cleempoel, 2014). In addition, the SOR model has been used in the literature in order to examine hedonic, experience-related, consumer phenomena. Specifically, it appears that the holistic perspective of consumer behaviour that this model provides is particularly effective in examining the

hedonic and impulsive aspects of consumers' responses (Chan, Cheung, & Lee, 2017; Chang, Eckman, & Yan, 2011; Fiore & Kim, 2013; Floh & Madlberger, 2013; Ladhari et al., 2017; Zheng, Men, Yang, & Gong, 2019). As this research explores the causal factors and mechanisms affecting consumers' impulsive food buying after exposure to hedonic visual brand cues, this model is used to conceptualise and justify the building blocks of the literature review.

A *stimulus* can be defined as any external or internal factor that has the capability to influence consumers' behavioural responses (Chang et al., 2011). Several lines of evidence suggest that exposure to hedonic brand cues found in the shopping environment can enhance impulsive food buying. Furthermore, previous research has established that the way in which consumers engage with consumption acts through their senses is meaningful in the process of assessing the antecedents of impulsive food buying. Moreover, the review of the literature suggests that consumers' hedonic needs, and related hedonic brand cues, may be valuable factors to consider in order to explore impulsive food buying. Additionally, the studies presented thus far provide evidence that the process of learning, and consumers' individual sensitivity to reward, may play meaningful roles in explaining impulsive food buying.

*Organism* can be defined as the "mediating processes between the stimulus and consumers' response" (Fiore & Kim, 2007, p. 426). According to Zheng et al. (2019, p. 153), "organism is an internal state of individual which is represented by affective and cognitive states". Organism can be conceptualised as the different strategies and mechanisms that consumers use to make purchase decisions and, as a result, they represent the intermediate step analysed in this research. Previous research has found that considering the processes mediating stimuli exposure and consumers' responses may be beneficial to identify and explain the causal mechanisms at play. Finally, *response* can be defined as the end result of consumers' decision-making and in this study it is represented by consumers' impulsive food buying (Chang et al., 2011). The following table shows the key themes, authors and related impact on the study.

Key bodies of literature	Key authors	Key themes in the literature	Impact on the study
Stimulus-Organism-Response (SOR) model	Chan, Cheung, & Lee, 2017; Chang, Eckman, & Yan, 2011; Fiore & Kim, 2013; Floh & Madlberger, 2013; Kim, Park, Lee, & Choi, 2016; Ladhari et al., 2017; Petermans, Kent, & Van Cleempoel, 2014; Zheng, Men, Yang, & Gong, 2019	<p align="center"><b>Stimulus</b></p> <p>Stimuli found in the shopping environment, or related to participants' characteristics, enhancing impulsive food buying</p>	Application of Stimulus-Organism-Response (SOR) model to structure the literature review and guide the analysis of findings
		<p align="center"><b>Organism</b></p> <p>Different strategies and mental activities that consumers use to make purchase decisions</p>	
		<p align="center"><b>Response</b></p> <p>End result of consumers' decision-making (represented in this study by impulsive food buying)</p>	
Hedonic consumption	Alba & Williams, 2013; Hirschman and Holbrook, 1982; Ding & Tseng, 2015; Saad 2013; Vieira, Santini, & Araujo, 2018	<p align="center"><b>Hedonic consumption</b></p> <p>Consumer behaviour linked to emotive and pleasurable experiences caused by multisensory involvement</p>	Explore the role and purpose hedonic involvement within impulsive food buying
		<p align="center"><b>Consumers' hedonic needs</b></p> <p>Consumers' needs associated with pleasurable and rewarding experiences</p>	

Sensory marketing	Eklund & Helmfalk, 2018; Floh & Madlberger, 2013; Hultén, 2017; Krishna, 2012; Ladhari, Souiden, & Dufour 2017; Soars, 2009; Van Rompay, Fransen, & Borgelink, 2014	<p style="text-align: center;"><b>Sensorial hedonism</b></p> <p>Consumer involvement that engages consumers' senses and affects their behaviors</p>	Explore the role of hedonic visual brand cues within impulsive food buying
Decision-making theories	Boyd & Bahn, 2009; Hansen, 2005; Hsu & Yoon, 2015; Parayitam & Dooley, 2009; Shiv & Fedorikhin, 1999; So et al., 2015; Zellman, Kaye-Blake, & Abell	<p style="text-align: center;"><b>Information processing perspective</b></p> <p>Problem-solving centered theory suggesting that rational individuals maximise their satisfaction by making reasoned decisions</p> <hr/> <p style="text-align: center;"><b>Value perspective</b></p> <p>Decision-making theory suggesting that consumers reach decisions by making trade-offs amongst positive and negative values</p> <hr/> <p style="text-align: center;"><b>Cue utilisation theory</b></p> <p>Decision-making theory suggesting that consumers make purchase decisions by relying on cues found in the shopping environment</p> <hr/> <p style="text-align: center;"><b>Emotional perspective</b></p> <p>Decision-making theory suggesting that consumers make purchase decisions aimed at achieving hedonic experiences through consumption</p>	Explore the mechanisms consumers use to engage in impulsive food buying

Impulse buying	Iyer, Blut, Xiao, & Grewal, 2019; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Xiao & Nicholson, 2013	<b>Impulsive behaviour</b> Irresistible urge led by affective processes that interfere with cognitive and reflective reasoning	Identification, explanation, and categorisation of the causal factors and mechanisms influencing impulsive food buying
		<b>Consumers' impulsivity</b> A sudden, compelling, hedonically complex purchase behaviour	

Table 1: Key bodies of literature, authors, themes, and impact on the study

Consequently, this chapter is divided into three main sections. First, in section 2.1 the concept of hedonic brand cues is analysed and linked to the thesis' aim. Next, in section 2.2 the different theories on consumers' decision-making are examined as mediating processes and mechanisms affecting consumers' impulsivity after hedonic visual brand cues exposure. Finally, in section 2.3 the concept of impulsivity is investigated and interrelations with the previous themes are highlighted. At the end of this chapter, the context of this investigation and the research gap are identified. Finally, the analysis of the literature is linked to the deriving research questions useful to guide and inform the development of the methodology adopted in this study.

## 2.1 Hedonic brand cues (stimuli)

According to the SOR model, the first phenomena to analyse in order to examine consumers' responses are potential stimuli capable of influencing their purchase behaviour (Chan et al., 2017; Fiore & Kim, 2007; Zheng et al., 2019). Hedonic brand cues (defined as sensory signals capable of generating hedonic responses) can be regarded as conditioned stimuli that trigger consumers' goal-directed behaviour (reward-seeking responses in the case of hedonic stimuli) (Basso et al., 2019; Chang et al., 2011; Dey & Srivastava, 2017; Palazon & Delgado-Ballester, 2013; Simmank et al., 2015; Vieira et al., 2018; Zheng et al., 2019). As the following sections discuss in detail, consumers' hedonic needs can



be targeted and activated by exposure to the related hedonic brand cues (Alba & Williams, 2013; Hofmann et al., 2008; Tifferet & Herstein, 2012). Increasing research suggests that consumers' reward-seeking mechanisms can be 'activated' by exposure to particular cues found in the shopping environment (Ding & Tseng, 2015; Hsu & Yoon, 2015; Krishna, 2012; Luo et al., 2014; Miao et al., 2019; So et al., 2015). Therefore, hedonic brand cues are analysed in this thesis as potential causal factors triggering consumers' impulsivity.

In order to clarify the concept of hedonic brand cues and their role within brand strategies, these notions are individually analysed in the following sections. Consequently, first the concept of branding is defined and possible implications on consumers' hedonic responses are highlighted. The rationale behind this choice consist in contextualising the research and providing links to the branding literature, which proves beneficial to offer targeted recommendations to industry-related stakeholders. Then, the learning process that allows consumers to associate hedonic experiences to certain brands (or hedonic brand cues) is investigated. This concept is reviewed for its potential to explain the way in which consumers, including Generation Z, may have learned to transfer rewarding (and hence hedonic) properties from unconditioned rewards to conditioned ones (such as brands) and their role within impulsive food buying.

Next, the concept of hedonic consumption is analysed and implications on branding are emphasised. This concept was included to gain a detailed understanding of hedonic and experiential consumption acts in order to illuminate a theoretical understanding useful to explore and explain the causes of Generation Z's impulsive food buying. Finally, hedonic brand cues are classified according to (a) consumers' hedonic needs and (b) consumers' sensorial engagement. The review of these interrelated concepts represents the theoretical foundation useful to analyse the nature of the causal entities underlying the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying (Moñivas et al., 2005).

### **2.1.1 Branding theories**

Despite the presence of several definitions of a brand in the literature, many authors seem to be aligned to Kapferer (2012, p. 12) who states that a brand can be defined as “a name that symbolizes a long-term engagement, crusade or commitment to a unique set of values, embedded into products, services and behaviours, which make the organization, person or product stand apart or standout”. According to Schaefer and Rotte (2007), it is not the mere tangible functional benefits that brands provide to consumers. The utilitarian needs that brands satisfy are not at the core of consumers’ choice (Hsu & Yoon, 2015; Martin & Morich, 2011). Conversely, what has been proven to influence consumers’ choice is the intangible nature of the emotional connection brands establish with their consumers (Burnett & Hutton, 2007). Nevertheless, the way through which brands achieve this significant competitive advantage is still a matter of controversy in the literature (Ding & Tseng, 2015; Haugtvedt et al., 2008; Kim et al., 2016; Krishna, 2012; Priester et al., 2004; Park et al., 2010).

Several theories have emerged over the years in the attempt to clarify the way brands influence consumers’ choice (Fournier, 1998; Murawski, Harris, Bode, & Egan, 2012; Priester et al., 2004; So et al., 2015; Whan Park et al., 2010). However, the exact branding dynamics that affect consumers’ decision-making processes still remain poorly understood (Esch et al., 2012; Nathan & Scobell, 2012; Plassmann et al., 2012). Rational perspectives on decision-making, for example, stress the reduction of functional, social and emotional risks as the most significant way in which brands add value to consumers’ satisfaction (Bellman, 2012; Hansen, 2005). On the other hand, hedonic perspectives of the influence of brands on consumers’ choice highlight the importance of sensorial pleasure, enjoyment and experiential benefits on consumers’ ultimate outcome of decision-making (Alba & Williams, 2013; Ding & Tseng, 2015; Hirschman & Holbrook, 1982; Palazon & Delgado-Ballester, 2013; Tifferet & Herstein, 2012).

Furthermore, it is not clear whether the hedonic rewarding effect of branding is product-specific or if it can be also generalised to related incidental decisions (Murawski et al., 2012). Increasing research is highlighting a correlation between exposure to hedonic brand cues and goal pursuit across generations, even when the process is beyond the conscious awareness of the subjects (e.g. subliminal exposure) (Aarts, 2010; Murawski, Harris, Bode & Egan, 2012; Pessiglione et al., 2008; Reimann et al., 2012). One possible explanation offered for this phenomenon is that brands could be perceived by consumers as simple reward-triggering stimuli capable of activating consumers' hedonic mechanisms (Berridge et al., 2009). This abovementioned hedonic aspect of consumption appears to be particularly relevant for Generation Z. As Priporas et al. (2017, p. 376) observes, Generation Z is distinguished by a wish to evade the realities they face. As hedonic consumption is distinguished by feelings of escapism (Dey & Srivastava, 2017; Koles et al., 2018; Lavack, 2008), it may be particularly meaningful for Generation Z.

### **2.1.2 Brands as reward-triggering stimuli**

Considering the motivating properties of rewarding stimuli, this section reviews the literature related to reward and its role within consumer behaviour. The understanding of this concept is used in this study to explore and explain the causal factors and mechanisms influencing Generation Z's impulsive buying after hedonic visual brand cues exposure. On a physiological level, organisms have the innate tendency to identify (and take advantage of) those stimuli that signal the satisfaction of the related physiological needs (Buss, 2005; Crawford & Krebs, 2008; Griskevicius & Kenrick, 2013; Kenrick, Saad, & Griskevicius, 2013). As a result, organisms have developed a hedonic and rewarding system capable of ensuring the satisfaction of those physiological needs (Buss, 2005; Hartmann, 2010; Murawski et al., 2012; Smith, Mulder, & Hill, 2001). Rewards, in this light, can be seen as pleasurable motivational tools with the purpose to stimulate organisms to perform behaviours essential for survival (Berridge et al., 2009; Roesch, Calu, & Schoenbaum, 2007; Volkow et al., 2011). "Rewards are the most

crucial objects for life ... Species with brains that allow them to get better rewards will win in evolution. This is what our brain does, acquire rewards, and do it in the best possible way” (Schultz, 2015, p. 853).

The unconditioned rewards satisfying physiological needs are considered intrinsically hedonic rewards as they are inherently pleasurable (Berridge et al., 2009; Schultz, 2015). It is significant that positive emotions and feelings of hedonic reward, or pleasure, are experienced, and consequently learned, in events essential for life such as food consumption and kin protection (Festjens et al., 2014; Schultz, 1998; Spear, 2011). Organisms seem to remember stimuli and behaviours that guarantee (a) the acquisition of the maximum hedonic reward and (b) the avoidance of the minimum reward (or even punishment). Hence, powerful rewards (and punishments) have the capability to trigger motivation and learning (Nathan & Scobell, 2012; Spear, 2011).

Nevertheless, brands can be regarded as conditioned stimuli that trigger consumers’ hedonic goal-directed behaviour (Glimcher, 2009; Simmank et al., 2015; Volkow et al., 2011). Recent advances in neuroscience argue that this phenomenon is even observable from a physiological perspective as consumers’ brain regions that deal with reward (e.g. the reward circuitry) can be ‘activated’ by exposure to particular hedonic brand cues found in the shopping environment. Studies in this area found that consumers have the capability to transfer the hedonic properties of the abovementioned intrinsically hedonic rewards to those brands that use them in their communication strategies (Bruce et al., 2014; Hsu & Yoon, 2015; Knutson, Wimmer, Kuhnen, & Winkielman, 2008; Luo, Ainslie, & Monterosso, 2014; Murawski, Harris, Bode & Egan, 2012; Oliveira et al., 2014; Plassmann et al., 2012; Schultz, 2015; Volkow et al., 2011). Increasing research confirms that extrinsic rewards (such as brands) are not inherently pleasurable, unlike the intrinsically hedonic rewards previously discussed, but can acquire those properties through learned associations (Plassmann et al., 2012; Schultz, 2015; Spear, 2011). Since this research investigates the influence of hedonic (hence rewarding) visual brand cues on consumers’ impulsive buying, reward

seeking is considered in this investigation as a potential causal factor influencing impulsive food buying.

However, in order to understand the way brands achieve these conditioned hedonic responses, it is necessary to analyse the learning process that may lead consumers to transfer the properties of innate intrinsically hedonic rewards to learned extrinsic stimuli (e.g. brands) (Berridge et al., 2009; Dzyabura & Hauser, 2011). The understanding of this learning process may play a crucial role in the identification of the causal factors and mechanisms underpinning the relationship between hedonic brand cues exposure and consumers' impulsivity. Learning, from a behavioural perspective, is addressed by classical conditioning (Pavlov, 1927) and operant conditioning (Lexcelent, 2019). As a result, these two learning mechanisms are discussed and applied in a branding context below.

### **2.1.3 The way consumers learn about brands**

Considering that hedonic brand cues can act as rewards capable of 'activating' consumers' learned hedonic mechanisms (Chen, Zheng, & Zhang, 2016; Festjens et al., 2014; Li, Kenrick, Griskevicius, & Neuberg, 2012; Van den Bergh et al., 2008) learning is particularly relevant for the purpose of this research. Classical and operant conditioning are among the most cited learning processes used to explain the way consumers establish learned associations with brands (Plassmann et al., 2012; Rangel et al., 2008; Schultz, 1998). Unconditioned stimuli (i.e. intrinsically hedonic rewards such as tasty food) have the ability to trigger unconditioned responses (i.e. naturally occurring reactions such as hunger) (Simman et al., 2015; Volkow et al., 2011). Classical conditioning argues that when an unconditioned stimulus is associated to a neutral stimulus (e.g. a stimulus that does not produce naturally a specific response such a brand logo), an unconditioned response can be triggered. If the association is repeated in time, the behavioural response can be reinforced, and the unconditioned response can be generated even by the previously neutral stimulus presented alone. After repeated exposure, the previously neutral stimulus (e.g. a brand logo)

may become a conditioned one, and the previously unconditioned response may become a conditioned one (e.g. hunger triggered by exposure to brand logos such as McDonald's Golden Arches). Therefore, a behavioural response can be learned as the hedonic power of the unconditioned stimulus (or hedonic reward) can be transferred to the conditioned one (e.g. a brand logo). This phenomenon is known as stimulus generalisation (Nathan & Scobell, 2012) and its effectiveness has been repeatedly proven across different product and service categories (Pessiglione et al., 2008; Rangel et al., 2008; Schultz, 2015).

Nevertheless, learning from an instrumental perspective (also known as operant conditioning) suggests that consumers do not choose certain brands over others merely because of repeated conditioning. It is argued that consumers make buying decisions depending on the level of satisfaction (or hedonic reward) brands deliver to them (Klein & Melnyk, 2016; Ramanathan & Menon, 2006; Schultz, 1998). Consumers' learning dynamics are then defined through an operant conditioning lens as a process in which consumers, through trial-and-error procedures, learn behaviours that trigger either pleasurable hedonic consequences or the avoidance of negative outcomes. In operant conditioning, intrinsically hedonic stimuli such as palatable food (i.e. tasty food) act as positive reinforcers that motivate consumers to select not just any conditioned stimulus (or brand), but the stimulus that triggers the largest hedonic reward. Moreover, it appears that consumers' decision making processes can be 'conditionable' through intermediary hedonic experiences designed for influencing their perceived overall experience (phenomenon named *shaping*) (Boyer & Barrett, 2015; Kenrick et al., 2013; Schultz, 2015).

Analysing brands' strategies under this perspective, it may become clearer the reason why brands that employ hedonic cues (or reward-triggering stimuli) in their communication activities can be considered as conditioned stimuli that trigger consumers' goal-directed behaviour (Glimcher, 2009; Simmank et al., 2015; Volkow et al., 2011). A reinforcement of a connection between brand cues (neutral stimuli) and hedonic-rewarding cues (unconditioned rewards) through

repeated promotional activities, may lead consumers to learn a behavioural response by transferring the innate hedonic properties of rewarding cues to the brands that use them. As a result, consumers' conditioned responses to brand stimuli could be conceptualised as illustrative examples of stimulus generalisation (Murawski et al., 2012; Plassmann et al., 2012; Volkow et al., 2011). Therefore, the process of learning may be beneficial in exploring and explaining the influence of hedonic brand cues exposure on consumers' impulsivity. Nevertheless, considering that this research focuses on hedonic brand cues and the subsequent reward they generate, also the concept of hedonism and hedonic consumption need to be discussed.

#### **2.1.4 Hedonism**

The aim of this thesis is to identify and explore the nature of the causal entities underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. Considering the hedonic nature of the investigated visual brand cues, the concept of hedonism is discussed in this investigation as it proves beneficial to contextualise and explain the causal factors and mechanisms influencing consumers' impulsive food buying. Hedonism has attracted for thousands of years the attention of several disciplines. Philosophy, from Cyrenaicism to Epicureanism (Inwood & Gerson, 1994), religions, from Christianity to Hinduism (Feldman, 1997), and healing sciences, from Physiology to Medicine (Bynum & Bynum, 2011) have all tried to understand the purpose and nature of pleasure in life. At the core of hedonism lies the belief that pleasure is the principal aim in life and that societies should promote it as a core value for their members (Smelser & Badie, 1994).

Hirschman and Holbrook (1982), analysing consumers' acts from a hedonic perspective, coined the expression 'hedonic consumption' to describe the aspects of consumers' purchase behaviours that are linked to emotive experiences caused by the multisensory involvement one may feel with different products or brands. According to increasing research in sensory marketing, a

hedonic shopping experience includes the involvement of one or more sensory modalities (such as haptic, taste, scent, sound and vision) as the emotional arousal it triggers is inevitably filtered by one (or more) of consumers' five senses (Krishna, 2012; Herz, 2004; Knoeferle, Knoeferle, Velasco, & Spence, 2017; Krishna, Lwin, & Morrin, 2010; North, Hargreaves, & McKendrick, 1999; San-Martín, González-Benito, & Martos-Partal, 2017; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Vyncke, 2011; Mitchell, 2010). In this sense, customer satisfaction is not only achieved through the fulfilment of their utilitarian needs, but what matters is the hedonic involvement they experience.

Furthermore, "the idea that consumption – shopping – can be a hedonic experience makes sense in light of the evolutionary perspective" (Tifferet & Herstein, 2012, p. 177). Evolutionary consumption has arisen in recent years as a valuable theory to investigate those aspects of consumer behaviour that relate to pleasure and reward (i.e. hedonic) (Cohen & Bernard, 2013; Hantula, 2003; Miller, 2009; Saad, 2013; Schmitt et al., 2009). Evolutionary consumption suggests that numerous hedonic consumption acts can be conceptualised as pleasure-triggering evolved instincts aimed at finding adaptive solutions to ancestral challenges (Cohen & Bernard, 2013; Griskevicius & Kenrick, 2013; Saad & Peng, 2006). Consumers are likely to experience positive emotions and feelings of reward in consumption experiences related to meaningful events for life such as: food consumption (e.g. hedonic pleasure associated to the consumption of products or brands that suggest high caloric - fatty intake); romantic love (e.g. hedonic pleasure associated to the consumption of products or brands that signify one's tendency to find romantic love) and in-group belonging (e.g. hedonic pleasure associated to the consumption of products or brands that advocate for feelings of belonging to a specific social group) (Crawford & Krebs, 2008; Fenton-O'Creevy & Furnham, 2019; Festjens et al., 2014; Hume & Mills, 2013; Kenrick et al., 2013; Saad, 2013; Simmons, 2005; Volkow et al., 2011).



Similarly, hedonic brand cues that fall within these categories are likely to act as unconditioned rewards as they have the capability to trigger hedonic experiences that, in turn, may motivate the subjects who experience them to perform the related behaviour (Berridge et al., 2009; Roesch et al., 2007; Simmank et al., 2015; Van den Bergh et al., 2008; Volkow et al., 2011; Vyncke, 2011). It is interesting to underline the fact that hedonic consumption is related to impulsive buying (Alba & Williams, 2013; Berridge et al., 2009; Tifferet & Herstein, 2012). Specifically, increasing research in consumer psychology states that those who act on impulse feel rewarded and, in doing so, they experience hedonic pleasure (Fenton-O’Creedy, Dibb, & Furnham, 2018; Hausman, 2000; Hultén et al., 2013; Tifferet & Herstein, 2012; Togawa, Ishii, Onzo, & Roy, 2019; Vieira, Santini, & Araujo, 2018; Zheng et al., 2019). This is particularly relevant for the purpose of this thesis as also Generation Z appears to be motivated by the hedonic aspect of consumption (Priporas et al., 2017; Vukić, 2019). As Vukić (2019, p. 81) states, Generation Z’s “in-store shopping experiences should consist of socialization, novelty, entertainment, instant gratification, interaction and enjoyment”. As a result, this indicates a need to explore the shopping behaviour of this generation under a hedonic light. It is for this reason that before analysing the different mechanisms that consumers may use to make decisions (section 2.2) and the concept of impulsive behaviour (section 2.3), this thesis classifies hedonic brand cues according to the hedonic need and the hedonic sense targeted.

### **2.1.5 Hedonic brand cues classification**

Considering that the aim of this thesis is to identify and explore the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z’s impulsive food buying, a categorisation of hedonic brand cues is necessary as it may clarify their nature and potential causal influence on consumers’ responses (Festjens et al., 2014; Hultén et al., 2013; Luo et al., 2014; Young, Gudjonsson, Goodwin, Perkins, & Morris, 2013). This theoretical understanding is used to uncover the underlying motives and causal

entities affecting the research participants' responses after exposure to hedonic brand cues.

The criteria used to categorise the stimuli vary according to the research purpose (Brodeur, Dionne-Dostie, Gruhn & Scheibe, 2008; Montreuil, & Lepage, 2010; Dan-Glauser & Scherer, 2011; Marchewka, Zurawski, Jednorog, & Grabowska, 2013). Taking into consideration the aforementioned discussed interrelation (section 2.1.4) of hedonism with both consumers' intrinsic rewards (i.e. hedonic experience associated to meaningful behaviours) and sensorial rewards (i.e. hedonic experiences associated to the five senses), the categorisation system used in this research for clarifying the different types of hedonic brand cues complies with these two criteria. Specifically, the following sections categorise hedonic brand cues first according to the targeted hedonic need and then according to the sense targeted (haptic, taste, scent, sound and vision). The review of the literature has highlighted that two branches of Marketing address these two criteria: Evolutionary Consumption (discussed in the following section) (Saad, 2013) and Sensory Marketing (discussed in section 2.1.8) (Krishna, 2012). The categorisation of hedonic brand cues based on these two criteria, in turn, is used to illuminate possible causal relationships between hedonic brand cues exposure and consumer responses.

### **2.1.6 Consumers' hedonic needs and their purpose**

Evolutionary consumption states that consumers' consumption dynamics can be conceptualised, and hence examined, as adaptive solutions to ancestral challenges (Cohen & Bernard, 2013; Griskevicius & Kenrick, 2013; Saad & Peng, 2006). This perspective has increasingly arisen over the recent years as a valuable theory to investigate those aspects of consumer behaviour that relate to pleasure and reward (i.e. hedonic) (Cohen & Bernard, 2013; Durante & Griskevicius, 2018; Eisend, 2018; Hantula, 2003; Miller, 2009; Saad, 2013; Schmitt et al., 2009; Tifferet & Vilnai-Yavetz, 2017). As previously mentioned, hedonic rewards have the potential to motivate individuals to perform reward-

triggering behaviours. Research in consumer motivation confirms that persons have innate intrinsic preferences towards stimuli that signify and satisfy their hedonic needs (Banister & Hogg, 2004; Chang et al., 2011; Hausman, 2000; Park-Poaps, 2010).

In line with these findings, Saad (2013, p. 353) states that our mind “is comprised of a set of computational systems that have each evolved to solve a domain-specific problem (e.g. forage for food, avoid predators, find a mate, invest in kin, build non kin alliances)”. Nevertheless, it appears that individuals are not aware of their ‘ultimate’ purpose and tend to make their choices in line with a more ‘proximate’, or hedonic, layer of understanding (Buss, 2015; Sermonti, 2009). This coexisting duality of interpretations (‘proximate’ *versus* ‘ultimate’) has been applied in order to explain individuals’ behaviour across different disciplines such as sociology (Lopreato & Crippen, 1999; Rubin, 2002); humanities (Gottschall et al., 2004; Skidelsky, 2010); as well as consumer behaviour (Cohen & Bernard, 2013; Doremus-Fitzwater, Varlinskaya, & Spear, 2010; Durante & Griskevicius, 2018; Eisend, 2018; Foxall, 1993; Griskevicius & Kenrick, 2013; Kenrick et al., 2013; Li et al., 2012; Saad, 2013; Tifferet & Herstein, 2012).

Reward and hedonic pleasure fall under this ‘proximate’ dimension of reality (Alba & Williams, 2013; Berger & Shiv, 2011; Griskevicius & Kenrick, 2013; Saad, 2013; Schultz, 2015). As previously stated, it is significant that hedonic pleasure is experienced in meaningful events for life such as food consumption, sexual intercourse and in-group membership (Festjens et al., 2014; Schultz, 1998; Spear, 2011). Similarly, it is significant that brand cues associated to the hedonic experiences belonging to those categories (i.e. food consumption, sexual intercourse and in-group membership) can be perceived by consumers as conditioned stimuli capable of activating hedonic experiences (Berridge et al., 2009; Murawski et al., 2012; Volkow et al., 2011). Considering the fact that this thesis focuses on hedonic brand cues (i.e. cues capable of triggering hedonic experiences), this ultimate-proximate distinction needs to be clarified further as it

is essential to explore the causal influence of consumers' hedonic needs and their role within impulsive food buying.

#### **2.1.6.1 The ultimate-proximate distinction**

"Proximate explanations address the *how* and *what* of a phenomenon, while ultimate explanations tackle the *why* (why would a given trait have evolved to be of this particular form?)" (Saad, 2013, p. 352). This distinction is relevant to this thesis as it provides a theoretical understanding aimed at exploring and explaining the causal factors and mechanisms underpinning impulsive food buying. As previously mentioned, the aim of this thesis is to identify and explore the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. Nevertheless, examining the causal entities underlying an observable phenomenon is not easily achievable without a holistic understanding of the different layers of causality that contribute to its development (Danermark et al., 2019; Easton, 2010). According to Saad (2013), the ultimate-proximate distinction can be used to identify different layers of causality underpinning consumers' hedonic needs and, consequently, hedonic brand cues.

Gazzaniga (2000), for instance, examining the impact of consumers' hedonic emotions on their impulsivity levels, both under a proximate and ultimate light, concluded that emotions are merely 'proximate' and impulsive (hence fast) adaptive mechanisms that override rational cognition. This finding is validated also by research in different disciplines such as Neuroscience (Reck, 1980); Economics (Li et al., 2012) and Psychology (Reimann et al., 2012). Similarly, consumers do not stop, think and buy according to their ultimate layer of understanding. What is usually perceived as relevant is the 'proximate' level of perception and hedonic needs fall exactly under this 'proximate' dimension of reality (Alba & Williams, 2013; Berger & Shiv, 2011; Griskevicius & Kenrick, 2013; Saad, 2013; Schultz, 2015). As a result, analysing consumers' hedonic needs through the 'ultimate - proximate' lens provides not only a deeper ontological understanding of impulsive food buying, but also crucial indications on the causal

factors and mechanisms that may have triggered it (Cohen & Bernard, 2013; Kenrick et al., 2013; Saad, 2004; Saad & Peng, 2006). It is for this reason that the following section discusses consumers' hedonic needs and related hedonic brand cues under the proximate and ultimate distinction.

### **2.1.7 Hedonic brand cues appeal on consumers' hedonic needs**

Consumers' hedonic needs can be categorised in four basal types: survival; reproduction; kin selection and reciprocal altruism (Foxall, 1993; Griskevicius & Kenrick, 2013; Apaolaza-Ibez, 2010; Kenrick et al., 2013; Saad, 2013). As a result, hedonic brand cues that fit within these categories may have the potential to act as unconditioned rewards capable of triggering hedonic experiences (Brodie, Whittome, & Brush, 2009; Buss, 2005; Griskevicius & Kenrick, 2013; Haviland et al., 2005; Plassmann et al., 2012; Saad, 2013). Therefore, the following sections discuss each category of consumers' hedonic needs and the way they can be targeted by the related hedonic brand cues under a 'proximate' and 'ultimate' light. This categorisation is used in this research to explain why exposure to hedonic brand cues may lead consumers to purchase impulsively the brands that employ those cues in their visual communication.

#### **2.1.7.1 Food consumption and related hedonic brand cues**

The 'ultimate' need that individuals have to address in their lifetime is the fact that the required caloric necessities (food consumption) should be assimilated by eating in order to guarantee survival chances (Saad, 2013). This 'ultimate' need takes the form of 'proximate' adaptations that confer people a motivational apparatus in order to satisfy their physiological needs. As a result, this 'ultimate' need has led to the development of a 'proximate', or hedonic, system that guarantees the satisfaction of food consumption (Alba & Williams, 2013; Garg & Lerner, 2013; Volkow et al., 2011). Analysing consumers' hedonic experiences related to food consumption under an 'ultimate - proximate' distinction has provided insightful information necessary to better conceptualise this specific need and how to appeal to it.

Saad (2006), for instance, analysing food-related consumption acts realised that many consumers' maladaptive behaviours could be better understood in light of the ultimate-proximate distinction. Specifically, it was showed that the increasing obesity outbreak that is endangering our society could be related to this 'ultimate' layer of explanation. After all, people evolved hedonic taste predilections for highly caloric and fatty food, as caloric insufficiency represented a recurring challenge in ancestral times. Our innate tendency to culinary hedonism (such as reward related to eating) is a mere 'proximate' manifestation of this mechanism (Buss, 2015).

In this light, it comes as no surprise that the top ten food brands in the world have one common theme: they offer highly caloric and fatty food (Saad, 2013). Similarly, it is significant to highlight that the increase in obesity levels among the Western culture is directly related to the intensification of (a) the availability of unhealthy food (Leung et al., 2011) and (b) the food-related environmental rewarding cues used in brands' communication campaigns (Simmark et al., 2015). It has been shown that people primed with highly palatable food-related cues are more impulsive (Brogan et al., 2010), are more prone to 'opportunistic eating' (Hays & Roberts, 2008), are more emotionally unstable (Bryant et al., 2007) and seem to extend that impulsiveness to other contexts of decision-making such as economic decisions (effect called 'inhibition spill over') (Bryant et al., 2008). After all, when this system evolved there was not the economy of plenty available today. As a result, a 'proximate' system driven by reward-seeking aimed at guaranteeing the fast (or impulsive) satisfaction of a primary need such as food consumption was beneficial (Hartmann & Apaolaza-Ibez, 2010).

It is interesting to underline for the purpose of this research that hedonic brand cues that fall within this category (hedonic food consumption) may be perceived by consumers as unconditioned rewards as they have the potential to trigger hedonic experiences. The subsequent feeling of pleasure provoked, in turn, may have the power of motivating those who experience it to perform the related reward-triggering behaviour (e.g. consuming the product or brand that employ the

hedonic cue) (Berridge et al., 2009; Roesch et al., 2007; Simmank et al., 2015; Van den Bergh et al., 2008; Volkow et al., 2011; Vyncke, 2011). As a consequence, the understanding of this process may be useful to explore the causes, or generative mechanisms, of hedonic brand cues exposure on Generation Z's impulsive food buying by providing a conceptual link between satisfaction of hedonic needs and impulsive buying.

It is significant to reiterate the fact that hedonic experiences may have the capability to trigger impulsive buying (Alba & Williams, 2013; Berridge et al., 2009; Dey & Srivastava, 2017; Tifferet & Herstein, 2012; Vieira et al., 2018). As previously mentioned, growing research in consumer psychology argues that those who purchase impulsively feel rewarded and, in doing so, they experience pleasure (Hausman, 2000; Hultén et al., 2013; Tifferet & Herstein, 2012). As a consequence, this categorisation system is fundamental to classify the hedonic brand cues investigated in this thesis as it allows the identification of the ultimate causes of reward-triggering cues on consumers' impulsiveness. The review of the additional consumers' hedonic needs and related hedonic brand cues is presented below.

#### **2.1.7.2 Socialisation and related hedonic brand cues**

The additional basal human drive useful to categorise consumers' hedonic needs, and consequently related hedonic brand cues, is consumers' inborn hedonic reward experienced during socialisation processes. This specific hedonic need is divided in parental love (hedonic reward experienced between parents and children) and in-group membership (hedonic reward experienced as a function of social interaction) (Durante & Griskevicius, 2018; Saad, 2013). The ultimate explanation of this 'altruistic' hedonic need seems to be aimed at the protection and safeguard of the genetic heritage. It is argued that the *raison d'être* of hedonic love between family members is not the protection of the organism itself but, on the contrary, it has the purpose of defending the shared genetic heritage. It is the gene that matters (hence 'selfish'); and it is the gene's maximum

chances of survival that should be protected ('ultimate' layer of understanding) (Buss, 2015; Dawkins & Davis, 2017).

In this light, it becomes understandable that even if some acts of altruism represent a short-term threat for the organism who does them, they are still beneficial at a genetic level and consequently they acquired hedonic properties over the course of time ('proximate' layer of understanding) (Cohen & Bernard, 2013; Saad, 2013). Likewise, reward experienced as a consequence of reciprocal altruism among not family related individuals (members who do not share the same genetic heritage) is justified as a sort of insurance policy (i.e. "I help my friend – group member – now but I expect their help in the future") (Ackerman, Kenrick, & Schaller, 2007; DeScioli & Kurzban, 2009; Rachlin & Jones, 2008).

Consumers' innate socialisation needs have been targeted by many brands as they represent a key role in the creation of powerful brand strategies. Muniz and O'Guinn (2001), for instance, analysing the feeling of belonging that some brands stimulate, defined brand community as a group of consumers linked by their passion for a particular brand. They identified that geographical differences were not impacting on the feeling of belonging and members developed a significant feeling of in-group membership. Specifically, the brand communities were characterised by three common characteristics: shared consciousness (the feeling of knowing each other); shared rituals and shared moral values.

A classic example of this phenomenon is represented by Apple users that define their identity as opposed to Microsoft customers and the Harley Davison community that does not only respect and admire the brand but also expects new members to do so. This feeling of belonging leads to increased brand loyalty and can be explained in light of consumers' innate hedonic need of reciprocal altruism. Specifically, the hedonic feeling of reward and reassurance that these brands provide ('proximate' layer of understanding) has this effect exactly because people are hardwired to socialise ('ultimate' layer of understanding) and the brand becomes the tool that allows it (Burnett & Hutton, 2007; Millan & Diaz, 2014).



On the same note, hedonic brand cues aligned to this hedonic need have the potential to affect consumers' decision making as they are capable of triggering hedonic reward by stressing the abovementioned meaningful values of family, friendship, altruism, and selflessness (Buss, 2005; Foxall, 1993; Griskevicius & Kenrick, 2013; Saad, 2013). "The design of products that possess neotenous (i.e. child-like) morphological features", for example, has acquired increasing attention in the literature (Saad, 2013, p. 362). Considering the favourable emotional states that child-like design activates, Miesler, Leder and Herrmann (2011) studied the way it could be transferred to products' design (e.g. Mini Cooper). The hedonic experience provoked, in turn, has the power of motivating those who experience it to perform the related reward-triggering behaviour (e.g. consuming the product or brand that employ the reward-triggering cue) (Millan & Diaz, 2014; Muniz & O'Guinn, 2001; Schau et al., 2009; Xiao & Nicholson, 2013).

Also in this context, this classification system provides an insightful perspective to identify possible causes of the innate, reward-triggering, impact of cues related to socialisation on positive consumers' responses. Considering that food consumption may have the purpose to socialise, it is possible to conceive that visual brand cues related to socialisation may act as triggers of impulsive food buying. As a result, the understanding of this concept may prove useful in explaining why exposure to hedonic visual brand cues related to socialisation may trigger Generation Z's impulsive food buying. Therefore, this process is taken into consideration when investigating the causal relationship between hedonic brand cues exposure and participants' impulsive food buying.

### **2.1.7.3 Consumers' love and related hedonic brand cues**

The last basal human drive useful to categorise consumers' hedonic needs, and consequently related hedonic brand cues, is hedonic love. Several lines of evidence suggest that hedonic pleasure may have the purpose of motivating individuals to find romantic love (Berger & Shiv, 2011; Gottschall et al., 2004; O'Connor, Re & Feinberg, 2011; Saad, 2013). As a consequence, individuals have developed 'proximate' adaptations that trigger hedonic experiences when

exposed to a potential partner (Buss, 2015; Griskevicius & Kenrick, 2013; Kenrick et al., 2013). Reward and hedonic experiences related to romantic love appear to fall under the 'proximate' dimension of reality (Berger & Shiv, 2011; Dunn & Searle, 2010; Festjens et al., 2014; Knutson et al., 2008; Maia & Behav, 2010; O'Connor, Re, & Feinberg, 2011; Plassmann et al., 2012; Spear, 2011). As a result, reward and hedonic experiences, in this context, appear to have the purpose of motivating individuals to look for romantic love (Chen et al., 2016; Hume & Mills, 2013; Van den Bergh et al., 2008).

Similarly, brand cues associated to the hedonic experiences belonging to this category can be perceived by consumers as conditioned stimuli capable of triggering hedonic experiences (Berridge et al., 2009; Murawski et al., 2012; Volkow et al., 2011). Saad (2013), for example, analysing consumers' acts under this light, showed that the majority of hedonic brand cues that have a sexual-signalling purpose are in line with gender-specific preferences. Schaedelin and Taborsky (2009) conceptualised these sexual signals as extended phenotypes as they seem to act beyond the person's physical body. It is interesting to underline that women's and men's respective consumption efforts are aligned exactly to gender specific preferences (Falk & Balling, 2009; Griskevicius & Kenrick, 2013; Kenrick et al., 2013; Smith et al., 2001). Examples of different product categories that have been studied under this light are: luxury cars (Dunn & Searle, 2010); cosmetics (Samson et al., 2009); and high heels (Smith et al., 2001).

Particularly relevant for the aim of this thesis is the finding that when consumers are exposed to gender-specific hedonic brand cues their impulsiveness increases. This effect has been demonstrated in men (Li et al., 2012) as well as women (Festjens et al., 2014). It seems that gender-specific cues act as unconditioned rewards capable of 'activating' consumers' pleasure centres which, in turn, "lead to a non-specific craving for all sorts of rewards like money, food or drinks" (Festjens et al., 2014). Therefore, even in this context, the understanding of this process may be useful to explore the causes, or generative

mechanisms, of the innate reward-triggering cues that have an influence on Generation Z's impulsive food buying and, consequently, it is taken into consideration when analysing participants' responses.

Nevertheless, as previously mentioned (section 2.1.5), in order to uncover the causal factors and mechanisms of hedonic brand cues exposure on consumers' impulsivity, hedonic brand cues have also to be categorised according to the sense they target. It is for this reason that the next section examines the way in which consumers' senses, and related hedonic engagement, can be holistically triggered by hedonic brand cues. As Hultén (2017, p. 9) states,

In a global consumption culture with generations X, Y and Z as target groups, it is evident that individuals use more than one sense in their multi-sensory brand-experiences ... Thus, it is not enough to analyse the senses in isolation; instead, the focus should be on what senses work best together in providing multi-sensory perceptions of a particular brand.

### **2.1.8 Branding consumers' sensorial hedonism**

Hirschman and Holbrook (1982) defined 'hedonic consumption' as the aspects of consumers' purchase behaviours that are linked to emotive experiences caused by the multisensory involvement one may feel with different products or brands. Hedonic shopping experiences include the involvement of one or more sensory modalities (touch, smell, taste, sound and vision) as the hedonic arousal they trigger is inevitably filtered by one (or more) of consumers' senses (Elder & Krishna, 2012; Herz, 2004; Kim et al., 2016; Knoeferle et al., 2017; Krishna, Lwin, & Morrin, 2010; North, Hargreaves, & McKendrick, 1999; San-Martín et al., 2017; Vyncke, 2011; Zhong & Mitchell, 2010).

Sensation can be defined as the process of transforming external stimuli found in the environment into meaningful information. It is defined as a neurological process that transmutes external data into information useful to the organism (Krishna et al., 2010). All the senses have evolved to serve a purpose useful for

life ('ultimate' level of explanation) (Buss, 2015). Nevertheless, what is generally perceived as relevant is not this 'ultimate' dimension of reality but is the 'proximate' (or hedonic) level of understanding of it. Individuals seem to benefit from a sensorial hedonic system that guarantees the fulfilment of meaningful behaviours for life (e.g. hedonic pleasure in food consumption) (Festjens et al., 2014; Schultz, 1998; Spear, 2011). Similarly, hedonic brand cues that fall within this category may be capable of acting as motivational rewards as they have the innate potential to trigger hedonic experiences by targeting consumers' sensorial hedonism (Berridge et al., 2009; Roesch et al., 2007; Simmank et al., 2015; Van den Bergh et al., 2008; Volkow et al., 2011; Vyncke, 2011). As a result, this branch of literature is reviewed as it may serve the purpose of illuminating the causes of Generation Z's impulsive food buying.

According to Krishna (2012), the only way the brands have to interact with consumers is through one (or more) of their five senses. All the possible strategic efforts a brand can adopt to affect consumers' decision-making processes and behavioural responses are inevitably filtered by one (or more) of their senses. The branch of marketing that studies this process is named sensory marketing, which is defined as "marketing that engages the consumers' senses and affects their behaviors" (Krishna et al., 2010, p. 2).

Sensory marketing is generally used from a branding viewpoint in order to produce subconscious triggers that influence both consumers' perception of meaningful product attributes (such as quality, style, perceived value, etc.) as well as their perception of the brand's personality (Ryan & Krishna, 2012; Krishna et al., 2010; Zampini & Spence, 2005). Growing research in this area shows that consumers, including Generation Z, are more vulnerable to self-generated brand attributes and images rather than the ones directly 'suggested' by the advertiser (Alba & Williams, 2013; Haugtvedt et al., 2008; Higgins, 2006; Priporas, Stylos, & Fotiadis, 2017). As a result, the following sections discuss the way in which exposure to hedonic brand cues can trigger consumers' hedonic experiences through their senses (sensorial hedonism).

### **2.1.8.1 Branding hedonic need for touch**

Touch is the first sense developed in the womb and the last to fade with age. The reason why touch has such a significant role is because infants across different species have the desperate need to maintain a constant contact with their parents in order to stay alive (Buss, 2015; Krishna, 2012). This 'ultimate' purpose shaped a 'proximate' hedonic system in order to guarantee its fulfilment. Touch has its own dedicated neuronal circuit in the brain and its own bonding hormone: oxytocin. It is not a coincidence that this pleasure triggering hormone is released in meaningful behaviours for life such as during breast-feeding and when helping those in need. This hormone, also informally named the cuddling hormone, is also acquiring increasing importance in neuromarketing research as could represent the ultimate research tool to assess products' characteristics (Bruce et al., 2014; Oliveira et al., 2014).

Several studies have demonstrated the potential positive branding implications of appealing to consumers' hedonic touch. Peck and Childers (2003), for example, showed that consumers' evaluations of brands were positively affected by the mere possibility of touching the branded products. Similar results have been found in different domains such as increased willingness to donate for charity when relevant branded material could be touched (Peck & Wiggins, 2006); improved trust in economic decision-making when partners could shake hands (Morhenn, Park, Piper, & Zak, 2008); as well as increased tips in a restaurant after there was a physical contact with the waitress (Crusco & Wetzel, 1984). It appears that consumers' need for touch has the potential of causing hedonic experiences capable of affecting consumers' decision-making processes (Alba & Williams, 2013; Hultén, 2012; Peck & Childers, 2006; San-Martín et al., 2017). Festjens et al. (2014), for example, showed that when women are primed with a tactile gender-relevant sensual cue, they become more impulsive; are more prone to take risks; and their willingness to pay for rewarding items increases (Van den Bergh, Dewitte, & Warlop (2008) demonstrated the same effect in men).

This categorisation system is fundamental to classify the exact hedonic brand cues investigated in this thesis as it allows the identification of the sense-specific reward triggering cues that have an impact on consumers' impulsivity. Although this thesis' focus is on the visual aspect of hedonic brand cues, the integration of this concept may be meaningful in exploring and explaining the way in which tactile stimuli may interact with visual stimuli in influencing impulsive food buying (e.g. consumers' ability to infer the texture of food after exposure to the related visual brand cues). As a result, this concept is used to explore and explain whether the multisensory involvement of consumers has an influence on their impulsive food buying.

#### **2.1.8.2 Branding hedonic taste**

"Taste preferences and aversions are adaptive solutions to ancestral survival problems" (Saad, 2013, p. 357). Growing research shows that taste preferences, despite being vulnerable to cultural influences, are innate and universally constant (Beauchamp & Mennella, 2009; Kitayama & Cohen, 2007). As previously mentioned, it makes logic sense to develop a taste preference for highly caloric and fatty foods when caloric scarcity represents a recurrent threat in ancestral history (Buss, 2015). This 'ultimate' mechanism influenced a 'proximate' hedonic response perceived as a significant preference for sweet and fatty food (Drewnowski, 1997). This finding is also confirmed by research in epigenetic where individual preferences for fatty food are correlated to different expressions of specific genes (Pepino et al., 2012).

This taste preference for sugary and fatty foods is so remarked in consumers that the sole view of hedonic brand cues associated to those foods fire the part of the human brain related to the processing of reward (Kühn & Gallinat, 2013; Simmons et al., 2005). In this light, it comes with no surprise the previously mentioned finding that an increase of hedonic brand cues exposure targeting consumers' taste is correlated to an increase in obesity levels among Western cultures (Simmanck et al., 2015). Several studies have demonstrated the potential implications of the correct understanding of taste dynamics in branding.

Specifically, the fact that taste perception (and then consumers' preferences) can be altered through exposure of specific hedonic brand cues has been analysed. Among the cues analysed in the literature, for instance, it is possible to find brand names (Hoch & Ha, 1986); colours (Hoegg & Alba, 2007) and product ingredients (Lee, Frederick, & Ariely, 2006). As a result, these findings show that consumers' responses can be influenced by exposure to hedonic brand cues.

Of particular importance for the purpose of this research it is the finding highlighted by Nowlis and Shiv (2005). They demonstrated that when consumers are 'distracted' with a task cognitive in nature (such as a memory chore), they focus on the affective value of a product. In addition, their taste preferences as well as their decision-making seem to lean towards the emotional alternative (e.g. high fat chocolate). They argue that a consumption choice is always composed by two parallel criteria: one affective in nature (e.g. taste) and the other more cognitive orientated (e.g. health benefits). This finding is aligned with the literature on decision-making that highlights different perspectives of consumers' choice and how brands can affect it. This enduring debate between cognitive and affective decision-making is discussed further in section 2.2. Taken together, these studies support the notion that consumers' ability to taste, or imagining the taste of, the desired food may have an impact on their food choices. As a result, this research investigates whether exposure to hedonic visual brand cues involving consumers' sense of taste may have an influence within Generation Z's impulsive food buying.

### **2.1.8.3 Branding hedonic smell**

The connection between smells and emotional memories had been established long before neuroscientists evidenced it through magnetic resonance imaging (MRI) techniques (Cahill, 2000). The reason why specific scents seem able to trigger hedonic emotional responses appears to be anatomical in nature ('proximate' level of understanding). Shedding light in one of the deepest brain sections, MRI studies confirmed that smell, memory and the emotional structures are not completely distinct components but are in fact all part of the same brain

circuit, the limbic system (Herz, 2004). Considering the neurological proximity of these components, they are characterised by an enhanced synaptic activity. Specifically, there are only two synapses between the olfactory nerve and the amygdala (which is considered to have a crucial role in emotions regulation) and three synapses between the olfactory nerve and the hippocampus (the neuralgic centre involved in memory creation and memory recall). In light of this knowledge, it comes with no surprise the fact that the sense of smell has such a powerful effect in triggering hedonic emotional memories (Churchlad, 1996; Krishna, 2012).

Several studies have demonstrated the potential positive branding implications of appealing to consumers' sense of smell (Krishna, 2012; Pentz & Gerber, 2013; Soars, 2009; Van Rompay et al., 2014). Morrin and Ratneshwar (2003), for example, highlighted a positive correlation between the level of recall and recognition of certain brands and the positive hedonic experiences that particular fragrances triggered. In line with these findings, Krishna et al. (2010) showed that the combination of products with specific appealing smells increased consumers' ability to recall brands' attributes as well as verbal information used to inform them. Similarly, Bosmans (2006) showed that the effect of pleasant scents (i.e. hedonic) in the retail environment had also a positive impact on consumers' evaluation of stores along with the quality of meaningful emotional states established in the shop.

Finally, a study conducted by Janssens et al. (2011), designed to assess consumers' reactions to olfactory stimuli (i.e. specific smells), showed that consumers who are primed with a reward triggering cue become (a) more impulsive; (b) drive their attention towards products that could consolidate their status; and (c) tend to have an enhanced memory recall. Together these studies provide important insights into the role of smell within consumers' purchase behaviour. As a result, this concept may be beneficial to help understand if and how olfactory cues, or their memory triggered by the related visual brand cue, may influence Generation Z's impulsive food buying.



#### **2.1.8.4 Branding hedonic sound**

A considerable part of branding communications efforts is aimed at pleasing the consumers' sense of hearing. Radio ads; television commercials; songs used in communication campaigns; airplanes' distinctive auditory signatures; technology's characteristic start-up sounds; ambient music in stores, restaurants and hotels are all examples of the way the auditory system is targeted by communication campaigns (Floh & Madlberger, 2013; Knoeferle et al., 2017; Pentz & Gerber, 2013; San-Martín et al., 2017; Soars, 2009; Xiao & Nicholson, 2013). Yorkston and Menon (2004) suggest that even written communication is interpreted aurally. The reason of this phenomenon is that when a word is read by a subject, they mentally hear the sound of it, as the word is memorised phonetically, and the semantic meaning is mediated by the sound of it. In the same vein, additional studies support the notion that the sense of sound plays a significant role in shaping consumer behaviour (Knoeferle et al., 2017; Kpossa & Lick, 2020; Pentz & Gerber, 2013; Soars, 2009). As suggested by Krishna (2012, p. 340),

Sound clearly has an impact on many different aspects of consumer behaviour from product evaluation (e.g. related to how a product sounds) to advertisement evaluation (e.g. related to the music in an advertisement) to perception of ambience in a restaurant, hotel, retail store, etc. (e.g. through ambient music).

Several studies have demonstrated the potential positive branding implications of appealing to consumers' hedonic hearing. Zampini and Spence (2005), for example, demonstrated that the sound certain foods make when they are eaten has an impact on brand evaluation. Foods such as chips, crackers and celery, for example, are expected to produce a cracking sound when they are bitten; ice cream, on the other hand, should produce a smooth sound in order to influence positively consumers' hedonic experiences. Similarly, the same association can be extended to the sound that brand names produce when they are heard. Yorkston and Menon (2004) proved, for instance, that "Frish" ice cream brand

sounds less creamy than “Frosh” ice cream brand. Apparently, the mere fact of changing the vocal “i” with the vocal “o” in the brand name had an impact on consumers’ brand evaluation which, in turn, influenced the perception of their experience with the brand. It is interesting to underline that no tangible product was used in their study as consumers made their decisions relying only on specific hedonic brand cues (e.g. the sound of it).

On a similar note, in a study aimed at influencing consumers’ choices, North, Hargreaves and McKendrick (1999) showed that also the background music in store could affect consumers’ purchase decisions by triggering positive hedonic experiences. Specifically, they found out that the fact of broadcasting French (or German) ambient music in store led the consumers to prefer and purchase French (or German) brands of wine. The idea that music in store has an impact on consumers’ perception is corroborated also by the findings of Spangenberg, Crowley and Henderson (1996) who argue that time perception and purchase intentions are affected by the degree of likeability (i.e. consumers’ hedonic experience) of ambient music.

It is interesting to underline for the purpose of this research that hedonic brand cues that fall within this category may be perceived by consumers as unconditioned rewards as they have the potential to trigger hedonic experiences (Berridge et al., 2009; Roesch et al., 2007; Simmank et al., 2015; Van den Bergh et al., 2008; Volkow et al., 2011; Vyncke, 2011). As a result, an implication of this is the possibility that auditory stimuli, or their memory elicited by the related visual brand cues, may behave as triggers of Generation Z’s impulsive food buying. Therefore, auditory cues are considered when exploring the causal factors influencing Generation Z’s impulsive food buying.

#### **2.1.8.5 Branding hedonic vision**

Visual stimuli have played an important role in advertising for a long time considering their powerful impact on consumers’ perceived experiences as well as evaluation of brands (Elder & Krishna, 2012; Meyers-Levy, 1989; Raghubir &

Krishna, 1999). Furthermore, increasing research is focusing on the role of visual cues on consumers' responses (Bahrainizad & Rajabi, 2018; Bruce et al., 2014; Forzano et al., 2010; Khachatryan et al., 2018; Knoeferle et al., 2017; Miesler, Leder, & Herrmann, 2011; Simmank et al., 2015; van Rompay et al., 2014; Xiao & Nicholson, 2013; Zheng et al., 2019). The use of beautiful facial characteristics in marketing, for instance, has been found to be effective in influencing positively consumers' responses across different domains such as conspicuous consumption (Fischer & Hills, 2012); product design (Miesler, Leder, & Herrmann, 2011) and advertisement recall (Plassmann et al., 2012).

Saad (2013) provides an explanation of it by stating that beauty, having the purpose of signalling phenotypic quality ('ultimate' level of understanding), correlates to symmetric facial features, which, in turn have the capability to trigger hedonic experiences ('proximate' level of understanding). Symmetric facial features are a universal indicator of beauty (Langlois et al., 2000; Little et al., 2011). In line with these findings, Aharon et al. (2001) showed that the exposure of men to beautiful female faces activated hedonic experiences making them more impulsive and affecting their consumption experiences, preferences and behaviours.

Previous research has established that a variety of factors found in the shopping environment can influence consumers' responses. Amongst the visual factors identified in the literature, it is worth noting: product packaging (Hsu & Yoon, 2015a; Hultén & Vanyushyn, 2011b; Hultén et al., 2013; Oliveira et al., 2014); atmospheric cues such as presentations of products (Chang et al., 2011; Flamand, Ghoniem, & Maddah, 2016; Floh & Madlberger, 2013; Hausman, 2000; Ladhari et al., 2017; Park, 2006); colours (Chang et al., 2011; Coulter et al., 2001; Ding & Tseng, 2015; Floh & Madlberger, 2013; Krishna, 2012; Ladhari et al., 2017; Strack & Deutsch, 2004) and transparent packaging (Berger & Shiv, 2011; Hansen, 2005; So et al., 2015; Zellman et al., 2010).

Furthermore, additional literature focused on: simple design (Boyer & Barrett, 2005; Griskevicius & Kenrick, 2013; Sebastiani & Montagnini, 2013); trust (Brodie

et al., 2009; Coulter et al., 2001; Floh & Madlberger, 2013; Parayitam & Dooley, 2009; Reimann et al., 2012; Saad, 2013; Shi, Lin, Liu, & Hui, 2018); novelty (Alba & Williams, 2013; Fiore & Kim, 2013; Griskevicius & Kenrick, 2013; Hausman, 2000b; Park, 2006; Plassmann et al., 2012; Reimann et al., 2012; So et al., 2015b; Xiao & Nicholson, 2013); exclusivity (Hume & Mills, 2013; Krishna, 2012; Ladhari et al., 2017; O'Guinn, 2001); childlike design (Almerico, 2014; Ding & Tseng, 2015; Fischer & Hills, 2012; Miesler et al., 2011; Saad, 2013); authenticity (Alba & Williams, 2013; Almerico, 2014; Burnett & Hutton, 2007; O'Guinn, 2001; Sebastiani & Montagnini, 2013) and health (Shiv & Fedorikhin, 1999; Simmank et al., 2015; So et al., 2015; Tetley, Brunstrom, & Griffiths, 2010).

Although considerable literature has grown up around the role of visual brand cues, there is a growing body of literature that calls for further research focused on analysing the role of visual communication within consumers' responses, especially within a retail environment (Eklund & Helmfalk, 2018; Khachatryan et al., 2018; Knoeferle et al., 2017; Kpossa & Lick, 2020; Zheng et al., 2019). Therefore, although extensive research has been carried out on the visual aspect of communication, no single study exists which investigates the causal factors and mechanisms affecting Generation Z's impulsive buying after exposure to hedonic visual brand cues. As a result, the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying is examined in this research.

### **2.1.9 Key insight on current research**

As previously mentioned, the aim of this thesis is to identify and explore the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. As a result, in this section of the literature the brand cues that have innate hedonic properties have been categorised first according consumers' hedonic needs targeted, and then according to consumers' sensorial hedonism. This phenomenon, despite being already evidenced in the literature, needs further examination. Specifically, there is a lack of understanding of the causal factors

and mechanisms affecting Generation Z's impulsive food buying after hedonic visual brand cues exposure. This is consistent with recent research that notes a lack of marketing studies focused on Generation Z (Kamenidou et al., 2018; Kamenidou, Mamalis, Pavlidis, & Bara, 2019; Priporas et al., 2019; Priporas, Stylos, & Fotiadis, 2017).

As a result, this thesis, building on this foundation, investigates the causal complex underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. Nevertheless, as discussed above, this research is adopting the Stimulus-Organism-Response (SOR) model to examine the influence of certain stimuli on consumers' responses (Chang, Eckman, & Yan, 2011; Fiore & Kim, 2013; Kim, Park, Lee, & Choi, 2016; Ladhari, Souiden, & Dufour, 2017; Petermans, Kent, & Van Cleempoel, 2014). As a consequence, also consumers' decision-making processes (i.e. organism) and related impulsive behaviour (i.e. response) need to be analysed in order to have a holistic perspective on the phenomenon investigated.

## **2.2 Consumers' decision-making (organism)**

The previous section reviewed the literature related to hedonic brand cues and the way they may affect consumers' responses (i.e. stimulus). According to the SOR model previously discussed, the following phenomena to be analysed in order to examine the influence of certain stimuli on consumers' responses are the different strategies and mental activities that consumers use to make purchase decisions (i.e. organism) (Chan, Cheung, & Lee, 2017; Chang, Eckman, & Yan, 2011; Fiore & Kim, 2013; Kim, Park, Lee, & Choi, 2016; Ladhari, Souiden, & Dufour, 2017; Petermans, Kent, & Van Cleempoel, 2014). Organism is defined as the "mediating processes between the stimulus and consumers' response" (Fiore & Kim, 2007, p. 426). This definition is expanded by Zheng, Men, Yang, and Gong (2019, p. 153) who state that "organism is an internal state of individual which is represented by affective and cognitive states".

Consequently, this section presents the review of the literature related to consumers' decision-making in order to highlight the mechanisms (i.e. systems, processes and ways of acting) they may use to make purchase decisions, as well as the way they may be influenced by exposure to hedonic brand cues. The inclusion of these theoretical constructs in the literature review provides insights meaningful to analyse and explain the causal complex influencing Generation Z's impulsive food buying. Furthermore, in line with the SOR model mentioned above, the inclusion of the decision-making theories below is essential to analyse the processes that take place between stimuli exposure and consumers' responses, which is crucial to identify, explore and explain the mechanisms influencing Generation Z's impulsive food buying.

The review of the literature highlighted four different approaches in the study of decision-making useful to conceptualise and explain the mechanism influencing impulsive food buying: the information processing perspective, the value perspective, cue utilisation theory and the emotional perspective. It is important to underline that no approach discussed below singularly attempts to explain consumers' decision-making processes on its own. Rather, the combination of them provides a holistic view of decision-making as different strategies can be adopted depending on different contexts, involvement, subjective characteristics and external variables (Peter & Olson, 2007; Santini et al., 2019). The understanding of these processes from a theoretical perspective is explored to uncover the underlying mechanisms affecting consumers' responses after hedonic brand cues exposure.

### **2.2.1 Information processing perspective**

Consumers' decision-making, which results in purchase behaviour (or brand choice), has been traditionally interpreted in light of the information processing perspective (Boyd & Bahn, 2009; Chowdhury & Olplwhg, 2011; Engel et al., 2001). "The information processing perspective presupposes that consumers behave as problem-solving cognitive individuals reaching for a reasoned

decision” (Hansen, 2005, p. 425). This viewpoint resulted in the creation of the consumer decision-making process where consumers are supposed to linearly move from “need recognition and problem awareness” until “post purchase evaluation” going through the phases of “information search”, “evaluation of alternatives” and “purchase decision”. According to this perspective, the decision maker is assumed to be able to maximise their satisfaction by cognitively weighing pros and cons and by evaluating the most satisfactory one (Boyd & Bahn, 2009; Chowdhury & Biswas, 2011; Mukhopadhyay et al., 2008).

Nevertheless, according to increasing research, brand choice cannot be merely explained in light of the information processing perspective. Specifically, it is argued that many factors come to play a crucial role in consumers’ decisions. Consumer involvement, for example, is believed to have an impact on the amount of energy used to process cognitive information (Boyd & Bahn, 2009; Cacioppo & Haugtvedt, 1987; Celsi & Olson, 1988; Chowdhury et al., 2011; De Meulenaer, Dens, & De Pelsmacker, 2015; Engel, Kollat, & Blackwell, 2001; Krossa & Lick, 2019). Consumers’ processing capacity, also referred as computational capability, is influenced by several factors such as price, perceived risk and product heterogeneity (Mukhopadhyay, Sengupta, & Ramanathan, 2008). Specifically, the more the involvement increases, the more cognitively involved the consumer becomes (as the theory of reasoned actions suggests) (Boyd & Bahn, 2009; Chan et al., 2017; Fiore & Kim, 2013; Lavidge & Steiner, 1961).

The previously discussed conceptualisations of consumers may have significant implications on branding. If consumers’ choices were influenced merely by cognitive processes (as a function of involvement), the only way brands could affect their purchase behaviours would be by emphasising functional benefits (such as durability, reliability, performance, comfort, convenience, value for money, running costs, residual value and life-cycle costs) (Campbell & Goodstein, 2001; Chernev, 2008; Patrick & Park, 2006). Nevertheless, Shiv and Fedorikhin (1999, p. 290) state that “the characterization of the consumer in previous decision-making research as a ‘thinking machine’, driven purely by

cognitions, is a poor reflection of reality”. Consumers’ choices, including Generation Z’s, are also shaped by social and emotional benefits (e.g. fashion, social belonging status) and are affected by hedonic experiences especially in impulsive purchases (e.g. emotional states, self-image) (Bode, Bennett, Stahl, & Murawski, 2014; Garg & Lerner, 2013; Hofmann et al., 2008; Hultén et al., 2013; Muniz & O’Guinn, 2001; Palazon & Delgado-Ballester, 2013; Priporas et al., 2017; Shiv, 2007; So et al., 2015; Sofi, 2018; Young et al., 2013; Zellman et al., 2010).

In line with these findings, research in consumers’ motivation has shown that in order to increase consumers’ satisfaction, brands have to target both utilitarian and hedonic needs. Specifically, it has been shown that consumers’ thirst for utilitarian needs is satisfied by brands’ functional promised benefits, while brands’ subjective and experiential benefits seem to satisfy needs more hedonic in nature (Alba & Williams, 2013; Berridge et al., 2009; Higgins, 2006; Hirschman & Holbrook, 1982; Hume & Mills, 2013; Kang & Park-Poaps, 2010; Plassmann et al., 2012).

The evidence presented in this section suggests that when consumers engage in hedonic and experiential consumption acts, culminating in this research in impulsive food buying, they may not necessarily behave as “problem-solving cognitive individuals reaching for a reasoned decision” (Hansen, 2005, p. 425). Nevertheless, it could conceivably be expected that if they manage to find a rational justification to their impulsive purchase, or if their rationality is impaired as a result of hedonic visual brand cues exposure, the likelihood of impulsive food buying may be increased. As a result, information processing perspective is utilised to explore and explain the causal mechanisms examined in this research.

Nevertheless, considering the criticism that the information processing theory has found in the literature, the need to explore different perspectives emerges if a deeper understanding of decision-making wants to be discovered. Therefore, the following sections discuss alternative theories that conceptualise decision-making strategies depending on a variety of factors, such as personal



involvement, expected value, cues in the retail environment and hedonic motivations (Garg & Lerner, 2013; Hansen, 2005; So et al., 2015; Yates, 2007).

### **2.2.2 Value perspective**

Many writers have challenged the information processing perspective's claims as a result of consumers' conceptualisation of value-led decision-making. "The value perspective emphasises situations in which consumers make value trade-offs, such as price versus quality" when deciding among different alternatives (such as different brands) (Hansen, 2005, p. 421). The value-for-money dispute is perhaps one of the oldest debate in the decision-making literature (Monroe, 1979; Zeithaml, 1988). As Zeithaml (1988, p. 14) states, perceived value can be conceptualised as "an overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given". Nevertheless, also increasing recent research is adopting this perspective to conceive consumers' decision-making, including Generation Z (Brodie et al., 2009; Seo & Gao, 2015; Sweeney & Soutar, 2001; Whittaker, Ledden, & Kalafatis, 2007). As in a battle between two contenders, in the value perspective consumers have to 'trade-off' between positive (e.g. quality) and negative (e.g. price) characteristics in order to make decisions. In this light, value arises when positive ratios are achieved and decision-making is value-driven.

One possible implication of this understanding of decision-making is that different consumers may prefer different combinations of positive (e.g. quality, service, social visibility, hedonic involvement) and negative (e.g. price, social risk, guilt, reliability, hedonic dissatisfaction) attributes in order to make impulsive value-driven decisions (Fedorkhin & Shiv, 1999; Krishna, 2012; Silvera & Lavack, 2008; So et al., 2015; Togawa et al., 2019; Tuan Pham, 2004; Young et al., 2013). As a result, different brands can try to differentiate themselves on the base of positive (and negative) benefits in order to enhance consumers' perceived value (Johnson, Scholes, & Whittington, 2017; Peter & Olson, 2007; Sasmita & Mohd Suki, 2015; Zellman et al., 2010).

This distinction is also reflected in the way brands' strategic positioning is achieved. Strategic positioning is defined as the result of the selection of target market (where a company competes) and differential-competitive advantage (the way a company competes) (Gregory, 1985; Johnson et al., 2017). According to these strategic principles, brands can achieve a unique place in the mind of consumers through highlighting different combinations of positive attributes and negative ones. This combination of variables, in turn, highlights different successful and unsuccessful strategies that can be adopted to strategically position the brand where consumers want it to be (Johnson et al., 2017; Peter & Olson, 1999).

Overall, there seems to be evidence to indicate that consumers may rely on the trade-off between positive and negative values to make purchase decisions. The value perspective provides some support for the conceptual premise that the perception of positive values (e.g. reward versus price) may enhance impulsive food buying. Similarly, an implication of this is the possibility that perceived negative values may discourage impulsive food buying. Therefore, the value perspective is utilised when exploring and explaining the causal mechanisms underpinning the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying.

This perspective, however, although useful to interpret value-led decision-making, both from a consumer angle and from a branding viewpoint, it does not entirely explain the complexity of decision-making. Value-led perspective, despite clarifying decision-making by providing a pragmatic approach to choice built upon the enduring balance between gains and losses, does not consider the possible subjectivity and variability of the process (Brodie et al., 2009). This conceptualisation of consumers as rational decision-makers, capable of lucidly analysing the many variables involved in a purchase, and equipped to mathematically calculate the 'value equation', is believed to be an inaccurate depiction of reality. Specifically, this perspective is held responsible not to take into consideration the 'non-rational' side of decision-making such as emotional

purchases, impulsive decisions and hedonic consumption (Guido et al., 2013; Higgins, 2006; Rangel et al., 2008; Sweeney & Soutar, 2001).

Another criticism of much of the literature on the value perspective is the fact that it does not take into consideration the potential uncertainty related to its 'trade-off' component. As quality is an idiosyncratic construct influenced by subjective perceptions, it has been argued that it is not always possible to effectively weigh gains and losses, as a clear definition of quality is often unreachable (Bredahl, 2004; Kamenidou et al., 2018; San-Martín et al., 2017). After all, as stated above, quality is a perceived construct. As a consequence, the value-led perspective is believed to be incapable of reducing risks associated to choices in which the outcome is difficult to predict. Therefore, the need to consider different perspectives emerges if a holistic understanding of decision-making wants to be reached (Hansen, 2005).

### **2.2.3 Cue utilisation theory**

One possible contribution to the aforementioned limitation of value-led perspective comes from a different perspective of decision-making: cue utilisation theory. This model "suggests that consumers may try to reduce risk by using cues (such as price, brand name, advertising, colours, etc.) as indicators of the quality of a product or service" (Hansen, 2005, p. 421). In this light, consumers are understood as decision makers that, unable to find the time or motivation to carry out an extensive comparison of alternatives (or brands), rely on one or more cues to generalise the perceived quality itself. Dawar and Parker (1994), after a careful review of decision-making theories, argued that if (a) consumer involvement is low and (b) risk associated to purchase wants to be reduced, brand cues can facilitate the creation of heuristics (Bredahl, 2004; Reimann et al., 2012; Simmank et al., 2015; Vyncke, 2011). Heuristics are defined as mental short cuts acquired through learning and are believed to contribute to the creation of consumers' evoked sets (i.e. the groups of brands that come to mind in specific product categories). This finding has been investigated and confirmed in previous as well

as current research (Dzyabura & Hauser, 2011; Gigerenzer & Goldstein, 2011; Hauser, 2011; Sasmita & Mohd Suki, 2015).

Swinyard (1991), in an attempt to conceptualise cue utilisation theory through an economic lens, suggests that brands can be interpreted as assortments of cues. From this angle, a cue can be understood as a piece of information, and decision-making conceptualised as a cognitive process where consumers 'trade-off' among different cues. In this interpretation, the 'evaluation of alternatives' phase of consumers' choice requires a substantial amount of cognitive effort during which compensatory or non-compensatory decision-making take place. These results corroborate the findings of a great deal of literature which underlines the role of brand cues in shaping consumers' preferences and behaviour (Bredahl, 2004; Dawson & Kim, 2010; De Meulenaer et al., 2015; Dodds, 1995; Floh & Madlberger, 2013; Hultén, 2012; Murawski et al., 2012b; Richardson et al., 1994; Simmank et al., 2015; Spangenberg et al., 1996; Vyncke, 2011; Zampini & Spence, 2005).

Similarly to value-led perspective, compensatory decision-making occurs when the potential absence (or poor perception) of certain desired cues is compensated by the balance of other less desired cues (e.g. poor quality compensated by low price). Conversely, in non-compensatory decision-making, the decision maker limits their choice as they feel that a determined cue (or cues) must be obligatorily enclosed in the chosen brand (Richardson et al., 1994). Examples of brand cues identified in the literature are: brand names (Dodds, 1991); taste (Kühn & Gallinat, 2013); country of origin (Li & Dant, 1998); brand pricing strategy (Golden & Johnson, 1983); multicultural cues used in the brand promotional activities (De Meulenaer et al., 2015); store name (Dodds, 1995), product structure (Bredahl, 2004) and so forth. The compensatory nature of certain consumer behaviours led many authors also to the conceptualisation of compensatory consumption in which consumers buy to compensate some sort of negative state (Festjens et al., 2014; Garg & Lerner, 2013; Hansen, 2005; Koles et al., 2018; Xiao & Nicholson, 2013; Zellman et al., 2010).

Taken together, these studies support the notion that consumers may rely on pieces of information, or cues, to make purchase decisions. According to these data, it is conceivable to infer that also Generation Z's impulsive food buying may be influenced by exposure to cues found in the shopping environment. As a result, even in this instance, this theory is utilised to explore and explain the causal factors and mechanisms underpinning the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying.

Nevertheless, this perspective, as well as the others discussed above, despite providing several insights to address both consumers' decision-making and the way exposure to brand cues may affect it, have been largely criticised in the literature as thought to be too cognitively oriented (Hume & Mills, 2013; Luo et al., 2014; Simmank et al., 2015; Tuan Pham, 2004; Yates, 2007). The systemic evaluation procedures identified in those theories seem to forget that human nature is shaped and influenced also by another system, a system that does not always rationally weigh pros and cons nor does it follow the organised cognitive approach to choice (Babin & Darden, 1996; Bagozzi et al., 1999; Cahill, 2000; Leone et al., 2005; Luo et al., 2014; O'Reilly et al., 2016; Oliveira et al., 2014; Plassmann, O'Doherty, et al., 2008; So et al., 2015; Strack & Deutsch, 2004). This different approach to decision-making, named the emotional perspective, emerged in the nineties and, since then, has acquired increasingly growing attention in the literature.

#### **2.2.4 Emotional perspective**

Several researchers suggested that emotional responses were not contemplated in the other theories of decision-making (Babin & Darden, 1996; Bagozzi et al., 1999; Hemar-Nicolas, Ezan, Gollety, Guichard, & Leroy, 2013; Ladhari et al., 2017; Shiv & Fedorikhin, 1999; So et al., 2015). It is argued that decision-making is not always aimed at satisfying a need but can also be triggered by the desire of living a unique hedonic experience through consumption. "In this connection, the primary purpose is not to evaluate relations between attitude, beliefs and the

environment, but to fulfil a desire and to obtain pleasure in life” (Hansen, 2005, p. 421). Specifically, in Bagozzi’s interpretation (1999) of decision-making, the cognitive compensatory and non-compensatory approaches rooted at the core of cue utilisation theory, for instance, were not able to elucidate the impulsivity of consumers’ emotional responses. In his view, emotional decisions cannot be understood as the outcome of cognitive evaluation processes (as in information processing perspective) nor can be interpreted in light of ‘trade-offs’ between gain and losses (as in the value-led perspective). Conversely, they need to be seen as subjective impulsive responses to perceived stimuli in the environment, which affect, if not trigger, decision-making (Bagozzi, 2010; Leone et al., 2005; Miao et al., 2019). Considering that Generation Z prioritises the shopping experience over other aspects of consumption (Priporas et al., 2017), this theoretical underpinning may be beneficial to explain some of the mechanisms affecting their choice when food-shopping.

Since the rise of the aforementioned emotional perspective on consumers’ choice, innumerable studies have been developed in order to uncover whether brands (or brand cues) could actually trigger consumers’ emotions. Extensive research from the nineties (Babin & Darden, 1996; Bagozzi et al., 1999; Swinyard, 1993) until more recent times (Dijksterhuis & Meurs, 2006; Martin & Morich, 2011; Schultz, 2015; Shiv, 2007; Simmank et al., 2015; So et al., 2015) has demonstrated that “even slightly positive emotional states lead to less thought, less information seeking, less analytic reasoning, less attention to negative cues and less attention to realism” (Zimmer & Kapferer, 1994, p. 15). In other words, emotional states have been proven to have an impact on consumers’ decision-making by triggering goal activation (e.g. purchase of a specific brand). Emotions are not merely a variable to consider in the study of consumers’ choice, they are ingrained into decision-making itself (Ding & Tseng, 2015; Kim et al., 2016; So et al., 2015). Growing research has been conducted in consumer behaviour to examine the impact of specific emotions on consumers’ decision-making impulsivity (Bagozzi, Gopinath, & Nyer, 1999; Haviland-Jones, Rosario, Wilson, & McGuire, 2005; Higgins, 2006; Hofmann et al., 2008; Hultén

et al., 2013; Knutson et al., 2008; Murawski et al., 2012; So et al., 2015; Pham, 2004; Young et al., 2013).

Using this new perspective as a background, substantial research in this area (e.g. Hsu & Yoon, 2015; Luo, Ainslie, & Monterosso, 2014; Murawski et al., 2012; Simmank et al., 2015; Volkow et al., 2011) focused on the emotional hedonic experiences occurring as a consequence of consumers' exposure to different brand cues presented in the shopping environment. In addition, as previously discussed, further research links the concepts of emotional and impulsive decision-making to hedonic experiences (Alba & Williams, 2013; Berger & Shiv, 2011; Berridge et al., 2009; Higgins, 2006; Hirschman & Holbrook, 1982; Hultén et al., 2013; Hume & Mills, 2013; Kang & Park-Poaps, 2010; Palazon & Delgado-Ballester, 2013; Spear, 2011; Van den Bergh et al., 2008; Zhong & Mitchell, 2010). As Hansen (2005, p. 427) states, "such emotions may be rather well captured by the concept of pleasure". It is for this reason that this research, building exactly on this growing body of research, investigates the causal mechanisms underpinning the relationship between hedonic brand cues exposure and consumers' impulsivity.

Nevertheless, as mentioned before, it is important to stress the fact that no perspective discussed above attempts to explain the complexity of decision-making on its own. It has been recognised that no single viewpoint provides the precise theory of decision-making also because consumers themselves adopt different strategies in different situations and/or when exposed to different brand cues (Bettman et al., 1998). As Peter and Olson (2007, p. 55) argue, "it is more useful to emphasise the interaction between the affective and the cognitive systems than to argue about which system is more important or dominant". As a consequence, before analysing the last building block of this literature review (i.e. impulsivity), the interplay of cognition and emotions on decision-making is discussed as it plays a crucial role in the identification and exploration of the causal mechanisms that underpin the relationship between hedonic brand cues exposure and consumers' impulsivity.

## **2.2.5 The interplay of cognition and emotions**

The way cognition and emotions affect decision-making, as well as the functional (or cognitive) and emotional (or affective) brands' added values, are among the most crucial aspects stressed by research in branding as well as consumer behaviour (Bagozzi et al., 1999; Berlin, Rolls, & Kischka, 2004; Brakus, Schmitt, & Zarantonello, 2009; Brodie et al., 2009; Bruce et al., 2014; Chang & Chieng, 2006; Ding & Tseng, 2015; Esch et al., 2012; Parayitam & Dooley, 2009; Reimann et al., 2012). Considering that the focus of this thesis is on investigating the causal factors and mechanisms affecting consumers' impulsivity after hedonic brand cues exposure, and in light of the previously discussed finding that impulsive behaviour is the outcome of emotional responses (as opposed to rational thinking) (Berlin, 2004; Luo et al., 2014; Simmank et al., 2015; Strack & Deutsch, 2004), the way in which cognition and emotion affect consumer responses needs to be clarified. The understanding of this dichotomy influencing decision-making may be beneficial to further illuminate the causal factors and mechanisms influencing Generation Z's impulsive food buying.

### **2.2.5.1 Fast and slow processes involved in decision making**

Several theories have emerged in the literature in the attempt to clarify the way consumers make decisions, namely: the information processing perspective, the value perspective, cue utilisation theory and finally the emotional perspective. Nevertheless, the mutable nature of consumer behaviour has represented for a long time an obstacle for those who tried to understand it in order to influence it (Bert, 2013; Hansen, 2005; Nathan & Scobell, 2012; Tifferet & Herstein, 2012). Some authors suggest that the reason why branding efforts do not have a constant effect among the targeted segments, for instance, is caused by the discrepancy between consumers' rational and emotional decision-making (Dawson & Kim, 2010; Leone et al., 2005; Maxwell, 2014; Reimann et al., 2012; Rook & Fisher, 1995; Shiv, 2007).



Fedorikhin and Shiv (1999), focusing on the context in which decisions are made, found that when consumers make decisions, two different but interconnected mental processes are triggered simultaneously: one cognitive and one affective. The main difference between the two processes is that the affective one is triggered automatically while the cognitive one is likely to emerge in a more controlled way (Garg & Lerner, 2013; Parayitam & Dooley, 2009; Reimann et al., 2012; Simmank et al., 2015; So et al., 2015). “Two conceptual systems tend to operate in parallel in any given task: an experiential system, which is affective in nature and is associated with crude and rapid processing, and a rational system, which is cognitive in nature and is associated with a more refined and deliberative processing” (Shiv & Fedorikhin, 1999, p. 280). Affective responses are usually faster (i.e. impulsive) than cognitive ones and they may even occur without the cognitive involvement of the subjects who experience them (Etkin & Sela, 2016; Klein & Melnyk, 2016). Furthermore, it appears that when the emotional involvement prevails, the rational system is impaired (Etkin & Sela, 2015; Klein, 2014; Shiv & Fedorikhin, 1999).

This finding has been proven in a study in which consumers were presented a binary choice: one higher on the affective (or hedonic) dimension (e.g. a slice of chocolate cake) but lower on the cognitive one (i.e. linked to potential perceived negative consequences such as unhealthy lifestyle); while the other being lower on the affective aspect (e.g. fruit salad) but higher on the cognitive dimension (i.e. associated to positive lifestyles and health choices). The results show that when consumers' mental processes are constrained by different tasks cognitive in nature (such as mnemonic tasks) the choice of the hedonic alternative was higher. On the other hand, when consumers' processing resources are not influenced by different tasks cognitive in nature, they are less vulnerable to their affective and impulsive mental mechanisms. Specifically, they are more likely to use their controlled cognitive process to make decisions, consequently evaluating future consequences and choosing the healthier option (e.g. the fruit salad) (Shiv & Fedorikhin, 1999).

This phenomenon can be explained in light of the fact that both the cognitive and the emotional components of consumers' decision-making are at work simultaneously; but while the former is dependent on the conscious act (or availability) of processing resources, the emotional system is involuntary and capable of influencing decision at a deeper and more powerful level (Berger & Shiv, 2011; Berlin, 2004; Bert, 2013; Yates, 2007). Additional factors identified in the literature capable of affecting consumers' emotional involvement include mood (Bahrainizad & Rajabi, 2018; Floh & Madlberger, 2013; Hansen, 2005; Hausman, 2000; Hultén et al., 2013; Kacen & Lee, 2002; Lucas & Koff, 2017; Luo et al., 2014; Park, 2006; Silvera & Lavack, 2008; Strack & Deutsch, 2004); temptation (Baumeister, 2002; Higgins, 2006; Mukhopadhyay et al., 2008; Murawski et al., 2012; Wertebroch et al., 2008) and consumers' vulnerability (Higgins, 2006; Hofmann et al., 2008; Lucas & Koff, 2017; Strack & Deutsch, 2004; Volkow et al., 2011).

Overall, there seems to be evidence to suggest that the interplay of cognition and emotion has an influence on consumers' behavioural responses. This evidence provides some support for the conceptual premise that when consumers' rationality is impaired, the likelihood of impulsive food buying as an outcome of emotional involvement may be enhanced. Therefore, this mechanism is considered to shed light on the causal complex underlying the relationship between hedonic visual brand cues' exposure and Generation Z's impulsive food buying.

#### **2.2.5.2 Branding cognition and emotions**

In order to understand the way brand cues may affect the cognitive and emotional systems that consumers use to make decisions, a brief explanation of the physical structures involved in decision-making is necessary. Analysing consumers' mental processes from a neurobiological perspective, it appears that the limbic system (which is a network of nerves and structures involved in primary drives and pleasure) plays a central role in the establishment of the correlation between cognition and emotion (Bickel et al., 2007; Maia & Behav, 2010; Van

den Bergh et al., 2008; Volkow et al., 2011). Specifically, within the limbic system, the hippocampus seems to be involved in cognitive processing while the amygdala with emotional control (Bagozzi, 2010; Hsu & Yoon, 2015; Rangel et al., 2008; Reimann et al., 2012; Roesch et al., 2007). These two systems, due to their proximity, interact with each other giving to the emotional structures the ability to interact with cognitive planning and decision-making. This finding is consistent with the argument that emotions play an adaptive role within the management of long-term planning processes particularly when the overabundance of factors requires a fast multi-tasking ability (Panksepp, 1999).

The mental structures involved with emotions have the ability to perceive and stock data without the express permission of the cognitive driven consciousness (Chartrand & Fitzsimons, 2011; Custers & Aarts, 2010; Karremans, Stroebe, & Claus, 2006; Murawski et al., 2012). This information, in turn, has the potential to affect the subjects' decision-making capabilities once a conscious decision needs to be made (Eichenbaum, 2002). This finding proves that although some processes are led by consumers' conscious awareness, a considerable amount of them are either initiated or mediated by unconscious emotional responses (Yamasaki et al., 2002). Laboratory evidence of this finding, that shows potential implications of the understanding of this phenomenon on branding, has been highlighted in several studies applying functional magnetic resonance imaging techniques (fMRI). Deppe, Schwindt, Kugel, Plaßmann and Kenning (2005), for example, analysing the impact of implicit memory (the kind of unconscious memory affected by emotions) on brand choice, showed that the subjects analysed, when choosing their favourite brand, deactivated the memory related to cognition and logic reasoning in order to increase the activation of the areas of the brain involved with emotions and hedonic experiences. In other words, previous emotional experiences were assimilated by the subjects into decision-making.

Another interesting study carried out by McClure et al. (2004) shows the impact of brand cues on the emotional system by comparing two of the most famous soft

drinks brands ever marketed: Coca Cola and Pepsi. Despite the fact that previous blind experiments had already demonstrated that the preference of one drink over another was casual, McClure et al. (2004) were the first to demonstrate using fMRI technology that the real point of difference of one brand over another was exactly the emotional responses they were able to generate. Brain activity was registered while the subjects were tasting the products both when they were aware of the brand and when they were not aware. The findings showed that when the subjects were not aware of the brand tasted, the preference was determined only by sensory information as activity was registered mainly in the part of the brain associated with cognition.

On the other hand, when the subjects were aware of the brand tasted by being previously exposed to the logo, the Coca Cola customers showed decreased activity in the brain area related to cognition and increased activity in the parts of the brain linked to emotions and hedonic experiences. In other words, when subjects were brand aware, their objective evaluation (or cognition) and ability to make rational decisions were impaired by their emotional background. Emotions and hedonic experiences, in this context, have been proven to influence and lead cognition in brand choice (Ding & Tseng, 2015; Esch et al., 2012; Kim et al., 2016; Luo et al., 2014).

Overall, these studies highlight the notion that cognitive and affective component of decision-making are at work simultaneously, and while the cognitive one is more reflective, the affective one is more impulsive. An implication of this is the possibility that the understanding of the conflict between cognitive and affective aspects of decision-making may be beneficial in exploring and explaining the causal complex influencing Generation Z's impulsive food buying. As a result, the interplay of cognition and emotions is utilised when analysing the causal mechanisms underpinning the relationship between hedonic brand cues exposure and Generation Z's impulsivity in food choices.

## **2.2.6 Key insights for current research**

It is of particular relevance for the purpose of this thesis that affective reactions to external stimuli (such as hedonic brand cues) are linked to the degree of the perceived hedonic experience one may have with a specific product or brand (Alba & Williams, 2013; Ding & Tseng, 2015; Higgins, 2006; Palazon & Delgado-Ballester, 2013; Santini et al., 2019; Tifferet & Herstein, 2012). When consumers' decision-making is affected by their affective system, what matters is the perceived hedonic experience related to their choice rather than the potential consequences those decisions may have (e.g. the hedonic pleasure related to eating a high caloric food). In other words, it appears that hedonic pleasure, through the use of a fast and impulsive emotional system, has the purpose of guaranteeing the satisfaction of consumers' hedonic needs (see discussion in section 2.1.6 for a categorisation of these needs) (Luo et al., 2014; Park, 2006; Strack & Deutsch, 2004).

Similarly, the hedonic brand cues analysed in this research may have the capability to trigger hedonic experiences appealing to participants' affective system (see section 2.1.4 for a discussion of hedonism, hedonic experiences and pleasure). This subsequent feeling of hedonic pleasure provoked, in turn, may have the causal power of motivating those who experience it to impulsively perform the related reward-triggering behaviour (e.g. consuming the product or brand that employ the hedonic cue). It is significant to reiterate the fact that hedonic experiences have the capability to trigger impulsive buying (Alba & Williams, 2013; Berridge et al., 2009; Tifferet & Herstein, 2012). As previously mentioned, growing research suggests that those who purchase impulsively feel rewarded and, in doing so, they experience pleasure (Hausman, 2000; Hultén et al., 2013; Tifferet & Herstein, 2012). As a result, analysing participants' impulsive decisions in light of the theories previously discussed may shed light on the causal mechanisms that underpin the relationship between hedonic brand cues exposure and participants' impulsivity in food choices.

## 2.3 Impulsivity (response)

As previously stated, increasing research is adopting the Stimulus-Organism-Response (SOR) model to examine the influence of certain stimuli on consumers' responses (Chan, Cheung, & Lee, 2017; Chang, Eckman, & Yan, 2011; Fiore & Kim, 2013; Kim, Park, Lee, & Choi, 2016; Ladhari, Souiden, & Dufour, 2017; Petermans, Kent, & Van Cleempoel, 2014). In line with this conceptual model, the previous sections presented first an analysis of hedonic brand cues based on consumers' hedonic needs and related sensorial hedonism (stimulus); and then the main theories on decision-making in order to clarify the mechanisms that consumers may use to make purchase decisions (organism). In line with the aforementioned SOR model, this section concludes with a review of response. *Response* can be defined as the end result of consumers' decision-making and in this study it is represented by consumers' impulsive food buying (Chang et al., 2011).

As a result, in order to clarify the influence of hedonic brand cues on consumers' impulsive buying, the following concepts are analysed in the subsequent sections. First, the conceptual link between hedonic consumption and impulsive buying is reviewed. This concept is reviewed for its potential to explain the role of hedonic motivations that consumers may adopt to engage in impulsive food buying. Then, the way in which impulsive buying can be influenced by exposure to hedonic brand cues is investigated. The inclusion of this concept in the literature review provides insights meaningful to assess, explore and explain the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying. Next, this section of the literature reviews the purpose and causes of impulsivity and how impulsive behaviour manifest itself in a generalised as well as brand specific form. The review of these interrelated concepts represents the theoretical foundation necessary to explore and explain the causal complex influencing Generation Z's impulsive food buying. Finally, this section concludes with a review of factors that may influence consumers' impulsivity, namely, subjective sensitivity to reward, gender and culture. These concepts were

included to gain a detailed understanding of the factors that may affect the influence of hedonic visual brand cues on Generation Z's impulsive food buying.

### **2.3.1 Hedonic impulsivity**

The review of the literature related to hedonic brand cues and consumers' impulsivity highlighted a conceptual link between hedonic experiences and impulsive behaviour. Specifically, it is argued that hedonic experiences have the capability to trigger impulsive buying as those who purchase impulsively feel rewarded and, in doing so, they experience pleasure (hedonic experience) (Alba & Williams, 2013; Berridge et al., 2009; Hausman, 2000; Hultén et al., 2013; Tifferet & Herstein, 2012; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Togawa et al., 2019; Zhang, Xu, Zhao, & Yu, 2018). "As consumers seek positive hedonic emotions in the consumption process (Zhong & Mitchell, 2010) and marketers induce positive hedonic emotions by experiential marketing (Shaw, 2007)", this study investigates the role of hedonic involvement within impulsive food buying.

Despite the presence of several definitions of this concept in the literature, many authors seem to be aligned to Kacen and Lee (2002, p. 163) who state that impulsivity is defined as "a sudden, compelling, hedonically complex purchasing behaviour in which the rapidity of the impulse purchase decision process precludes thoughtful, deliberate consideration of all information and choice alternatives". Impulsive purchases are characterised by rapid, more arousing and less deliberate decision-making (Aragoncillo & Orús, 2018; Fenton-O'Creevy et al., 2018; Hoch & Loewenstein, 1991; Prashar, Parsad, Tata, & Sahay, 2015; San-Martín et al., 2017). Those who act on impulse are likely to act without reflection, be more impatient and crave for instant gratification (Berger & Shiv, 2011; Simmank et al., 2015; Wood, 1998). In addition, potential negative consequences are usually discounted in return for immediate hedonic experiences (Bickel et al., 2007; Luo et al., 2014).

The previously discussed interaction of two systems (cognitive and affective) on consumers' decision-making is reflected also in the literature that addresses impulsivity. Specifically, Hofmann et al. (2008, p. 22), building on Strack and Deutsch's (2004) concept of a "dual system model of behaviour determination", state that impulsive and reflective precursors of decision-making are at work simultaneously. In addition, it is stated that when short-term hedonic experiences are craved, the impulsive system tend to control decision-making. On the contrary, the reflective system leads decision-making for long-term choices that imply the evaluation of perceived consequences (Fedorikhin & Shiv, 1999; Hofmann et al., 2008; Lo, Lin, & Hsu, 2016; Moayery et al., 2019; So et al., 2015; Zellman et al., 2010).

Additional research in this area confirms that the outcome of consumers' decision-making can be conceptualised as a continuum that varies from significantly reflexive to significantly impulsive, also in the case of Generation Z (Chartrand, 2005; Dijksterhuis et al., 2005; Simonson, 2005). As previously mentioned, however, it is more useful to focus on the interaction of both the impulsive and reflective systems rather than arguing which one has the most marked effect on decision-making (Peter & Olson, 1999). Overall, these studies highlight the need for examining impulsive food buying as an outcome of the conflict between the cognitive and affective aspects of decision making. As a result, this contrast is considered when exploring and explaining the causes of Generation Z's impulsive food buying. As the following sections discuss in detail, however, situational (e.g. contextual) and personal (e.g. subjective) factors are likely to moderate the impact of these two systems on consumers' choice.

### **2.3.2 Branding consumers' impulsivity**

The finding that increased consumers' impulsivity is a beneficial factor for those brands who enhance it comes as no surprise (Chang et al., 2011; Reimann et al., 2012; Tifferet & Herstein, 2012; Xiao & Nicholson, 2013). Impulse purchases account for more than 50% of consumers' purchases around the world (Dawson



& Kim, 2010). It is interesting to highlight that consumers seem to buy on impulse despite their tendency not to be fully aware of their behaviour, as they are often believed to rationalise their impulsive behaviour in a subsequent step (*post hoc rationalisation*) (Hultén, 2012; Kacen & Lee, 2002; Lee & Kacen, 2008). In order to increase such phenomenon, branding strategies frequently employ diverse communication tools in their promotional activities. Among the ones cited in the literature, it is possible to find store designs, product and package displays, in-store promotions, direct mail marketing, television commercials, online marketing and social media (Kozinets et al., 2010; Pentecost & Andrews, 2010; Prashar et al., 2015; Valos et al., 2010; Vonkeman et al., 2017).

Although inexpensive products are among the items frequently bought on impulse, research shows that potentially any item (or brand) can be purchased impulsively as impulsivity can affect both low and high involvement decision-making (De Meulenaer et al., 2015; Kacen & Lee, 2002; Rook & Fisher, 1995). In addition, it appears that impulsive purchases are not dependent merely on consumers' contingent cues (such as in-store advertisement, packaging visual cues, etc.) but can be the function of consumers' implicit memories shaped by previous branding promotional activities (Shapiro & Krishnan, 2001).

According to Shapiro and Krishnan (2001), brands' promotional activities can cause consumers' impulsive responses through the retrieval of explicit memories (e.g. recalls of cues contingent to the immediate retail environment such as commercials, in store advertisements, etc.). Moreover, the same piece of research states that the same effect can be achieved through the retrieval of implicit memories (e.g. recollections of cues independent to consumers' proximate environment such as childhood memories, past experiences with specific products or services, etc.). "Impulse buying may thus be triggered by unconscious memories of advertising reaching consumers through a variety of promotional channels" (Hultén et al., 2013, p. 94). Brand recall (Pessiglione et al., 2008; Plassmann et al., 2012; Rangel et al., 2008; Schultz, 1998, 2015); consumers' habits (Floh & Madlberger, 2013; Hofmann et al., 2008; Moayery,

Narvaiza Cantín, & Gibaja Martíns, 2019; Muniz & O'Guinn, 2001; Sebastiani & Montagnini, 2013; Seo & Gao, 2015); nostalgic feelings (Alba & Williams, 2013; Krishna, 2012; Luo et al., 2014 Muniz & O'Guinn, 2001) and childhood memories (Bruce et al., 2014; Hemar-Nicolas et al., 2013; Higgins, 2006; Spear, 2011; Strack & Deutsch, 2004) have all been proven to be affecting consumers' emotional engagement and subsequent potential impulsive behaviour. Considering this evidence, it seems that impulsive buying can be influenced by several cues found in the shopping environment. It is therefore possible that such connections may be beneficial in illuminating the causes of Generation Z's impulsive food buying.

### **2.3.3 Classification of impulsive purchase behaviour**

Taking into consideration the variability of impulsive behaviour, different degrees of impulsive purchases that vary from pure impulsive purchase behaviour (at the point of sale) to planned impulsive behaviour (consumers' increased impulsive intention to buy after exposure to brand cues) have been delineated (Hultén et al., 2013). In order to conceptualise this continuum of impulsive purchases, increasing research in impulsivity is adopting Stern's (1962) classification system (Olsen et al., 2016; Prashar et al., 2015; Xiang et al., 2016; Xiao & Nicholson, 2013).

This classification scheme takes into consideration two variables to identify different typology of impulsive behaviour: the level of exposure to external stimuli (such as brand stimuli) and the level of planning in the decision-making process. These criteria highlight four different kinds of impulsive purchases: *pure* impulsive behaviour that does not take account of any preplanning (in-store purchases); *reminder* impulsive behaviour that includes some branding recall during decision-making; *suggestion* impulsive behaviour when the branding activity drives consumers' attention towards a latent need and finally *planned* impulsive behaviour when exposure to branding promotion provokes increased intention to buy which is then exerted at the point of sale.

This research project, building on Dawson and Kim (2010) and Hultén and Vanyushyn (2011), draws on the view that impulsive behaviour is stimulus driven and that exposure to specific brand cues (hedonic and visual in this investigation) may influence participants' impulsivity in food choices (Alba & Williams, 2013; Berridge et al., 2009; Hausman, 2000; Hultén et al., 2013; Tifferet & Herstein, 2012). Nevertheless, in order to obtain a holistic overview of the causal factors and mechanisms affecting impulsive food buying, every type of impulsive behaviour is investigated in this research.

#### **2.3.4 Brand cues influence on consumers' impulsivity**

According to Esch et al. (2012), when consumers evaluate brands, they can do it according to internal information (top-down interpretation) or in line with stimuli they find in their external environments (bottom-up interpretation). Previous research identified several factors that influence impulsivity from a consumer interpersonal and intrapersonal perspective. Among the elements analysed, it is possible to find consumers' moods and temporary emotional states (Bahrainizad & Rajabi, 2018; Donovan, 1994; Floh & Madlberger, 2013; Hansen, 2005; Hausman, 2000; Hultén et al., 2013; Kacen & Lee, 2002; Luo et al., 2014; Park, 2006; Silvera & Lavack, 2008; Strack & Deutsch, 2004), personality differences (Puri, 1996), social acceptability of impulsive buying behaviour (Rook & Fisher, 1995), subjective sensibility to rewarding cues (Torrubia et al., 2001), identity (Dittmar et al., 1995), time available (Gurău & Tinson, 2003) as well as demographic factors (Wood, 1998).

On the other hand, among the external stimuli that affect consumers' impulsivity it is possible to find diverse brands' promotional activities such as magazines, television ads, billboards, social media campaigns, in-store advertising, online marketing and so forth. Hassay and Smith (1996), for example, show that consumers exposed to certain brands' direct marketing campaigns increased their impulsivity level towards those branded products or services (i.e. there was an increased intention to buy subsequently exerted in-store). Similarly, Del Saz-

Rubio and Pennock-Speck (2009) highlight that those who are exposed to brand advertisements are (consciously and unconsciously) led to develop favourable feelings towards the branded products. This emotional activation, in turn, has been proven to contribute to planned impulsive behaviour, also in the case of Generation Z (Anschutz, Engels, Becker, & Van Strien, 2009; Park, Lim, Bhardwaj, & Kim, 2011). Consumers' positive emotional responses to brands' visual advertisements in mass media are also considered to be a precondition for in-store impulsive purchases. Exposure to brands' visual advertisement in mass media has been proven to increase brand familiarity and recollection of favourable brands' feelings which, in turn, are reflected in impulsive behaviour once the consumer is exposed to in-store promotion (Hultén et al., 2013).

The combined effect of mass-media branding advertisements and in-store promotion on impulsive behaviour is highlighted also by Stilley, Inman and Wakefield (2010). In their research, it is underlined that brands' advertisement increases the likelihood of the consumer to visit the shop. In addition, it is stated that experiencing in-store brand cues after advertisement exposure may provoke consumers' recall of "forgotten needs" and could trigger consumers' arousal of hedonic "unplanned wants". The beneficial impact of in-store brands' promotional activities on consumers' impulsive behaviour is also highlighted in several studies that underline the importance of vicinity (Jones et al., 2003) and brands' sensory cues interaction (Soars, 2009) as the main factors influencing consumers' impulsive responses (Hultén, 2012; Peck & Childers, 2006; Puccinelli et al., 2009).

Taken together, these studies support the notion that hedonic brand cues found in the shopping environment may have an influence on consumers' impulsive buying (Anselmsson et al., 2014; Karremans et al., 2006; Tifferet & Herstein, 2012; Xiao & Nicholson, 2013). As a result, this research explores whether exposure to external direct triggers found in the shopping environment, among other subjective and situational factors, may influence positively Generation Z's impulsive food buying. Nevertheless, considering that the brand cues analysed

in this research are hedonic in nature (as discussed in section 2.1), the next session focuses on the conceptual link between hedonic brand cues and consumers' impulsivity.

### **2.3.5 Hedonic brand cues influence on consumers' impulsivity**

Hedonic brand cues found in the shopping environment can be considered as external factors affecting consumers' impulsivity (Brakus et al., 2009; Esch et al., 2012; Hofmann et al., 2008; Ko & Megehee, 2012; Murawski et al., 2012; Puth, Mostert, & Ewing, 1999; Reimann et al., 2012; Strack & Deutsch, 2004; Whan Park et al., 2010; Zhang, Xu, Zhao, & Yu, 2018). Specifically, as consumers are driven by both utilitarian and hedonic needs, it appears that the reason why hedonic brand cues have an impact on impulsive behaviour is because they have the potential of appealing to consumers' hedonic needs by triggering their emotional (and impulsive) system (Dey & Srivastava, 2017; Fenton-O'Creevy et al., 2018; Shiv, 2007; So et al., 2015; Vieira et al., 2018).

This concept is in line with Ding and Tseng's (2015, p. 994) findings that state that "hedonic emotions mediate the relationship between brand experience and brand loyalty". Building on Hirschman and Holbrook's (1982) findings on hedonic experiences, research focused on the experiential hedonism triggered by brands as a tool of differentiation from the competition, state that brand loyalty is positively correlated to brands' potential to trigger hedonic emotional experiences (Brakus et al., 2009; Chang & Chieng, 2006). Specifically, they suggest that those brands that focus on establishing emotional hedonic experiences will gain competitive advantages difficultly reproducible from the competition. As Esch et al. (2012, p. 75) argue, "consumers use experienced emotions rather than declarative information to evaluate brands".

It is interesting to underline for the purpose of this study that hedonic brand cues have the capability to trigger consumers' impulsive behaviour by activating consumers' emotional structures that process reward and pleasure (Erk et al., 2002; Schaefer & Rotte, 2007b). Increasing research is focusing on the impact of

hedonic cues on consumers' goals mediated by their impulsivity level (Plassmann, Kenning, et al., 2008; Schaefer & Rotte, 2007a). Additional research has also analysed the impact of subliminal priming with hedonic brand cues on consumers' brand choice (Berridge & Aldridge, 2008; Karremans et al., 2006). Priming is a widely used method to examine the impact of brand cues on consumers' decision-making without compromising the validity and reliability of the findings (Festjens et al., 2014; Murawski et al., 2012; Simmank et al., 2015; Van den Bergh et al., 2008).

Recent research has suggested that certain hedonic brand cues act as reward-triggering stimuli able "to influence a wide range of reward and decision-related brain regions" consequently increasing consumers' general and specific impulsivity levels (Murawski et al., 2012). In this sense, hedonic brand cues are regarded as conditioned stimuli (as discussed in section 2.1.3) that trigger consumers' hedonic needs even in the absence of their conscious awareness (Chartrand & Fitzsimons, 2011; Custers & Aarts, 2010). This finding is in line with neuroimaging research that confirms that exposure to hedonic brand cues increases consumers' impulsivity by triggering hedonic experiences in specific reward-related brain regions (Deppe et al., 2005; Schaefer et al., 2006). "Effective hedonic advertising appeals that visualise the consumption experience can thus ignite anticipated emotions that arise when a consumer imagines herself/himself in the consumption experience" (Hultén et al., 2013, p. 96).

Collectively, these studies outline a critical role of hedonic involvement within impulsive food buying. This combination of findings provides some support for the conceptual premise that Generation Z may engage in impulsive food buying in order to satisfy their hedonic needs. Similarly, these results suggest that Generation Z's impulsive food buying may be triggered by hedonic brand cues exposure. As a result, the role of hedonic involvement is considered when exploring and explaining the causes underpinning the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying. Nevertheless, in order to understand the generative mechanisms of this

phenomenon (such as the reason why exposure to hedonic brand cues causes consumers' increased impulsive behaviour), an analysis of the purpose of consumers' impulsive behaviour is needed.

### **2.3.6 Consumers' impulsivity purpose and implications on branding**

Consumer impulsivity is defined as a choice that prioritise an immediate hedonic reward despite the potential negative consequences it may have (Puri, 1996). Impulsive behaviour is characterised by an irresistible urge led by affective processes that interfere with cognitive and reflective reasoning. This concept is coherent with Damasio's (1999) definition of emotional reactions as an impulsive set of physiological responses with the purpose of increasing survival chances by taking advantage of opportunities while avoiding potential threats found in the environment (i.e. approach to positive emotions such as hedonic experiences while avoiding negative ones such as fear). It is believed that the quick and impulsive nature of the emotional system (that overrides the slow and reflective cognitive processes) has the purpose of motivating individuals (and hence consumers) to satisfy their hedonic needs (Buss, 2015; Kenrick et al., 2013; Moayery et al., 2019; Saad, 2013).

Similarly, brands that employ hedonic cues in their promotional activities may have the same impact on consumers' impulsiveness. Hedonic brand cues may have the capability to trigger hedonic experiences in those who are expose to it. These reward-triggering experiences, in turn, may enhance consumers' impulsivity levels. Van den Bergh et al. (2008), for example, showed that men exposed to gender relevant hedonic cues become more impatient in intertemporal choice between monetary rewards (which is an indicator used in the literature to measure impulsivity) (Kable & Glimcher, 2007; Luo et al., 2014; Van den Bergh et al., 2008; Xiao & Nicholson, 2013). In addition, they proved that this impulsivity could be generalised also to non-monetary rewards (e.g. generalised impulsivity). Similarly, Festjens et al. (2014) state that women

exposed to gender relevant hedonic cues become more impulsive, less loss adverse and willing to pay more for rewarding-triggering items.

In this light, impulsivity becomes a mechanism with the purpose of enabling the subjects who experience it to act without cognitively weighing pros and cons or the possible consequences that that specific impulsive behaviour could provoke (Buss, 2015; Cohen & Bernard, 2013). Considering that the hedonic brand cues investigated in this research may have these impulsive-triggering properties exactly because they appeal to consumers' hedonic needs, it is conceivable to analyse the 'ultimate' purpose of impulsivity. Impulsivity in this context would serve the purpose of motivating the subjects who experience it to perform the reward-triggering (or hedonic) behaviour by impairing their rational control over it (Crawford & Krebs, 2008; Lo, Lin, & Hsu, 2016; Saad, 2013). As a result, this research investigates whether an impaired rational control over purchase behaviour following hedonic visual brand cues exposure may enhance Generation Z's impulsive food buying.

### **2.3.7 Consumers' impatience**

The review of the literature highlights that consumers' impatience is a defining characteristic of impulsive behaviour, especially for Generation Z (Van den Bergh et al., 2008; Vojvodić, 2019; Xiao & Nicholson, 2013). Intertemporal decisions among alternatives that diverge merely on a single element (e.g. hedonic reward) are relatively easy: "individuals generally prefer a larger over a smaller reward, as well as a sooner-provided over a later-provided reward" (Van den Bergh et al., 2008, p. 85). Nevertheless, decision-making becomes more difficult when the choice is dependent on more than one element (such as reward and time). When consumers have to trade-off between smaller and sooner versus bigger and later rewards (e.g. "Do you prefer £50 now or £100 in one month?"), choice is less obvious as decision-making has to take into account the trade-off between costs (e.g. waiting time) and benefits (e.g. size of the rewards) (Green & Myerson, 2004; Soman et al., 2005).



It is interesting to underline for the purpose of this study that postponing a hedonic reward in time has been proven to decrease the perceived value of the reward (Soman et al., 2005). In addition, this process does not seem to be influenced by the cognitive and reflective system but in fact by the affective determinants of decision-making (Loewenstein, 1996). Specifically, it appears that physical and temporal proximity to rewards positively affect impulsive behaviour and lead to steeper discounting of future rewards (Baumeister, 2002; Festjens et al., 2014; Kable & Glimcher, 2007; Plassmann et al., 2012; Simmank et al., 2015; Van den Bergh et al., 2008). In other words, those who are exposed to reward-triggering stimuli (such as the hedonic cues discussed in section 2.1.7) are more impatient and want a higher reward at a later point in time than those who are not exposed to the same hedonic stimuli. This finding is in line with neuroscientific research that shows that reward-triggering stimuli (i.e. sensorial hedonism) activate the structure of the brain that deals with pleasure which, in turn, triggers impulsive behaviour (McClure et al., 2004).

Considering the previously discussed notion that also hedonic brand cues can be considered as reward-triggering stimuli capable of enhancing consumers' impulsive behaviour, consumers' impatience is a crucial concept to address as it may serve as an indicator of consumers' impulsiveness. If those brands that employ hedonic cues in their promotional activities are capable of impacting positively consumers' impatience, then they may have a higher chance of increasing consumers' desire for the sources of the reward, also in the case of Generation Z (Reimann et al., 2012). This finding is supported by additional research that links consumers' impatience, instant gratification and increased risk-taking (Festjens et al., 2014; Luo et al., 2014; Plassmann et al., 2012; Schultz, 2015; Van den Bergh et al., 2008; Xiao & Nicholson, 2013). As a result, this research investigates if consumers' impatience can be altered following hedonic visual brand cues exposure and whether this factor is meaningful in enhancing Generation Z's impulsive food buying.

### **2.3.8 Consumers' generalised impulsivity**

Even though the aforementioned discussion may be useful in explaining the link between consumers' impatience and impulsive behaviour, it does not clarify whether consumers' generalised impulsivity can be enhanced by exposure to hedonic brand cues. As a result, additional research examined the degree of the out-of-domain effect of this mechanism. According to Baumeister (2002), for instance, those who are exposed to reward-triggering stimuli in one category (e.g. money) enhance their impulsivity levels for rewarding stimuli even if those stimuli are not related to the same category (e.g. food). In the same vein, further research shows that heroin addicts in a drug-craving state, do not limit their discounted intertemporal choice to the drug (i.e. they prefer smaller but quicker doses instead of bigger but later ones) but they reflect the same mechanism to monetary rewards (i.e. they prefer smaller but quicker monetary rewards instead of bigger but later ones). Similarly, smokers in nicotine deprivation do not only discount intertemporal choice toward nicotine but also in respect of monetary rewards (Field et al., 2006). Likewise, Wilson and Daly (2004) showed that discounting of monetary rewards increased also in individuals exposed to gender-relevant hedonic cues.

This "spill-over effect" (Berger & Shiv, 2011; Luo et al., 2014) is based on the neurological finding that hedonic rewards are processed similarly in the brain despite their different nature (Montague et al., 2006). The same brain region that deals with pleasure (the limbic system) seems to be elicited for a wide variety of reward-triggering stimuli (Camerer et al., 2005). For example, stimuli related to food (such as visually appealing images, tempting scents, etc.), sensual stimuli (such as beautiful faces, sensual images, etc.) and drugs are all processed by the same brain region: the limbic system (Aharon, Etcoff, Ariely, Chabris, O'Connor, & Breiter, 2001; Stark et al., 2005). In other words, this means that different types of hedonic rewards (such as palatable food, sensual stimuli and so forth) use the same brain structure to be processed. This also means that a general activation of that brain structure can provoke effects that are non-specific

only to the source of the reward as the brain is unable to perceive the difference (Wadhwa et al., 2008).

Several studies in this area (Glimcher, 2009; Simmank et al., 2015; Volkow et al., 2011) suggest that exposure to proximate rewards is capable of 'activating' consumers' hedonic mechanisms which, in turn, "can lead to a non-specific craving for all sorts of rewards like money, food or drinks", consequently triggering generalised consumers impulsivity (Festjens et al., 2014). Therefore, reward-triggering cues have the biological capability to provoke specific as well as generalised impulsive behaviour that has an impact on a wide variety of intertemporal choices, even the ones that are not directly related to the source of the reward.

This finding is particularly relevant to this research because, as previously mentioned, hedonic brand cues can be categorised as reward-triggering cues capable of affecting consumers' impulsivity. Nevertheless, if consumers use the same brain structure to process reward, then an activation of it through exposure to hedonic brand cues should not only provoke an augmented consumers' impatience, but it could also lead to an increased generalised and brand-specific impulsivity level. Therefore, this research investigates whether exposure to hedonic visual brand cues can trigger generalised impulsive food buying in Generation Z. As Plassmann et al. (2012, p. 121) suggest "the prospect of brand exposure altering decision making even in an unrelated task is compelling and worthy of further investigation".

Increasing research is exploring the out-of-domain effect that this general activation may have on decision-making (Berger & Shiv, 2011; Briers et al., 2006; Giordano et al., 2002; Luo et al., 2014). Specifically, the finding that activation in one domain may trigger the urge to consume anything rewarding in other domains (e.g. food) has been used to test the degree of extensibility of out-of-domain impulsive activation (Festjens et al., 2014; Van den Bergh et al., 2008). This notion is crucial for this thesis as it represents the conceptual link necessary to investigate if generalised consumers' impulsivity after hedonic brand cues

exposure can be reflected also on brand-specific impulsivity. In other words, as the next session discusses in detail, this research investigates whether exposure to hedonic brand cues can enhance impulsive purchases of those brands employing the related hedonic brand cues.

### **2.3.9 Consumers' brand-specific impulsivity**

The last concept that needs to be discussed in order to establish the conceptual link between consumers' enhanced impulsive behaviour and consumers' brand-specific impulsivity is willingness to pay. Brand-specific willingness to pay is defined as the maximum amount of money the customer is ready to pay for consuming that specific brand in relation to competitor brands (Anselmsson et al., 2014). Previous research analysed consumers' willingness to pay as a function of product quality (Bronnenberg & Wathieu, 1996; Ghose & Lowengart, 2001). Nevertheless, increasing research suggests that competitive advantage is not merely influenced by perceived quality (Anselmsson et al., 2014; Champion, 2006; O'Donohoe, 2009; Sethuraman, 2003).

Anselmsson et al. (2014, p. 90), for example, state that what seems to make a difference in consumers' willingness to pay for certain brands is "non-product quality-related customer perceptions". Among these factors, it is possible to find brand awareness (Anselmsson et al., 2007), corporate social responsibility (Anselmsson & Johansson, 2007), brand strength (Netemeyer et al., 2004), brand country of origin (Tikkanen & Vääriskoski, 2010), brand perceived social image (Tikkanen & Vääriskoski, 2010), brand perceived uniqueness (Netemeyer et al., 2004), brand loyalty (Shi et al., 2018; Zeithaml, Berry, & Parasuraman, 1996) as well as brand equity (Keller, 1993). According to Aaker (1996, p. 107) "price premium may be the best single measure of brand equity available". Nevertheless, one criticism of much of the literature on this phenomenon is that it has focused on the reasons why consumers choose and purchase those brands in spite of the augmented price rather than on the reasons why they are willing to pay more for them (Anselmsson et al., 2014).

It is interesting to underline that consumers' willingness to pay is linked to brand equity (Aaker, 1996; Sethuraman, 2003). Despite the presence of several definitions of brand equity in the literature, many authors seem to be aligned to Keller (2020) who focuses on the differential effect that brand knowledge has on customer responses. Although there is a discrepancy also between the elements that contribute to brand equity (Christodoulides & de Chernatony, 2010), many authors support the notion that the finance-based brand equity depends on the overall financial value of the brand which, in turn, "is rooted in the minds of customers. The latter is the focus of the psychologically oriented customer-based brand equity perspective" (Aaker, 1996; Anselmsson et al., 2014, p. 91; Keller, 1993; Netemeyer et al., 2004; Yoo & Donthu, 2001).

Therefore, if exposure to the hedonic brand cues is actually capable of triggering brand specific impulsivity, and related willingness to pay for those brands, it can be argued that those cues could be used in brand promotional campaigns to ultimately enhance brand equity. "Conceptually, several writers describe price premiums as the most useful indicator of brand equity" (Anselmsson et al., 2014, p. 91). Significant research is supporting the concept that high consumers brand-specific willingness to pay is an indicator for brand health and a predictor of market share (Aaker, 1996; Ailawadi, Lehmann, & Neslin, 2003; Doyle, 2001; Sethuraman, 2003).

Overall, there seems to be evidence to indicate that consumers' brand specific impulsivity can enhance consumers' willingness to pay for those brands triggering impulsive buying. As a result, this study investigates whether exposure to hedonic visual brand cues can influence Generation Z's brand-specific impulsivity and if the price consumers are willing to pay plays any meaningful role into influencing impulsive food buying. This aspect, if relevant to Generation Z, may be useful to draw conclusions targeted at providing practical implications to guide practitioners towards maximising the effectiveness of visual brand communication strategies and Generation Z's impulsive food buying.

### **2.3.10 Subjective differences in consumers' impulsivity**

Although the abovementioned discussion proves useful in assessing consumers' generalised and brand-specific impulsivity level after exposure to hedonic brand cues, some clarifications are needed. Subjective differences in consumers' vulnerability to hedonic reward (and hence impulsivity), for example, have been identified as a moderating factor on consumers' responses. It is possible that different consumers could have different levels of impulsivity not only because of exposure (or non-exposure) to specific hedonic cues but also due to their subjective and innate differences in impulsivity levels (Strack & Deutsch, 2004; Sofi, 2018; Sofi & Najar, 2018; Tifferet & Herstein, 2012; Torrubia et al., 2001).

As previously discussed, impulsive behaviour is distinguished by a generalised sensitivity to rewarding experiences (Ramanathan & Menon, 2006). According to Gray (1990), there is a strong link between exposure to rewarding cues and motivation to acquire (or consume) them. It is suggested that this phenomenon can be explained in light of a subjective system that motivates the subject exposed to rewarding cues towards the source of the hedonic experience. In his theory of motivation, named Reinforcement Sensitivity Theory, Gray (1990) suggests that when hedonic cues are found in the external environment this motivational system, named Behavioural Approach System, responds by bringing the organism nearer to the source of the reward.

Considering the discussed notion that also certain brands employ hedonic cues in their promotional activities (section 2.1), it is plausible to conceive an association between exposure to those hedonic brand cues and increased motivation to acquire the brands that use them (i.e. the source of the reward). Nevertheless, Torrubia, Ávila, Moltó and Caseras (2001) state that the behavioural implications of this exposure (e.g. brand choice) are not universally constant as different people have diverse subjective sensibility to rewarding stimuli. Specifically, those who have a high sensitivity to reward tend to respond more impulsively to hedonic cues and are prone to display an augmented motivation towards the reward-seeking behaviour (which in this context would be

brand-specific impulsivity). On the contrary, consumers who are characterised by a diminished sensitivity to reward are prone to be more reflexive and generally necessitate an intensified hedonic cues' exposure in order to have a positive impact on their motivation (Carver & White, 1994; Sofi, 2018; Sofi & Najar, 2018).

As a consequence, considering that interpersonal differences on reward sensitivity are reflected on their behavioural responses, it can be inferred that subjective sensitivity to reward moderates the impact of the studied hedonic brand cues on Generation Z's impulsive food buying. Therefore, participants with a similar sensitivity to reward and prone to impulsive purchases are selected for this study (methodological implications and sampling are further examined in chapter 3.). Furthermore, this research investigates whether sensitivity to reward and ability to resist temptation are meaningful factors in exploring and explaining Generation Z's impulsive food buying.

### **2.3.11 Gender differences in consumers' impulsivity**

Gender is among the most used criteria adopted by marketers to segment consumers (Pentecost & Andrews, 2010; Tifferet & Herstein, 2012; Workman & Lee, 2010). According to Putrevu (2001, p. 1) segments based on gender are "easy to identify, easy to access, and large enough to be profitable". Gender differences in consumption are explained under different perspectives such as biological (Cohen & Bernard, 2013); sociological (Dittmar et al., 1995); cultural (Workman & Lee, 2010) and evolutionary (Chen et al., 2016).

Although the rationale behind the different theories that conceptualise genders' differences may differ, what seems to remain constant in the literature is the fact that males and females' impulsive behaviour is dissimilar (Atulkar & Kesari, 2018; Li et al., 2012; Simmank et al., 2015; Xiao & Nicholson, 2013). Tifferet and Herstein (2012), for example, state that women's volume of impulsive purchases is higher than men. Nevertheless, Pentecost and Andrews (2010), suggest that men, despite making fewer impulsive purchases, tend to spend more money than

women on those reduced purchase occasions. In addition, it seems that females tend to physically visit the stores more often than males.

Bakewell et al. (2006), for example, analysing fashion related purchases collected data from mixed gender samples but did not compare it in light of gender differences. On the other hand, Parker, Hermans and Schaefer (2004) comparing gender differences in a cross-cultural study found out that there is a difference between males and females attitudes towards fashion brands. Specifically, women were more conscious about fashion related purchases. In addition, Pentecost and Andrews (2010) highlight that women have significantly higher levels of impulsive behaviour towards fashion brands than men. Nevertheless, additional research suggests that as men appears to take more risks than females (i.e. to be more impulsive), women should be more risk adverse (i.e. more reflective) in their choices (Byrnes et al., 1999).

In line with these findings, Gasiorowska (2011) state that while men's impulsive behaviour is related to their mood and emotional state at the point of purchase, females' impulsive behaviour is more dependent on external stimuli such as brand cues. In addition, Coley and Burgess (2003) suggest that male impulsive behaviour is more functional in nature (i.e. directed towards instrumentality) while female impulsive behaviour is more emotionally driven. As a result, considering that this research investigates the causal factors and mechanisms affecting Generation Z's impulsive food buying as outcome of hedonic brand cues exposure, gender differences in consumers' impulsivity are taken into consideration as they may be a moderating factor on consumers' responses. Furthermore, an equal number of females and males are selected as participants of this research (further information provided in section 3.6) in order to assess whether there are any meaningful differences linked to participants' gender.

### **2.3.12 Cultural influences on consumers' impulsivity**

Nature versus nurture is one of the oldest debates that ever existed in philosophy, biology, psychology, medicine, sociology as well as marketing (Boyer & Barrett,



2015; Cohen & Bernard, 2013; Reck, 1980). Concisely, the spectrum varies from the genetic determinism defended by biologically minded scholars to the ethnographic constructionism (or even deconstructed postmodernism) portrayed by more anthropological approaches (Deese & Bechtel, 1990; Moñivas et al., 2005). This debate is reflected to some extent in the standardisation versus adaptation dichotomy that has populated marketing textbooks and research articles in the last eight decades (Ang & Massingham, 2007; Vrontis, Thrassou, & Lamprianou, 2009).

Saad (2013, p. 353) attempts to solve this enduring dilemma by stating that “culture and biology should not be pitted against one another. Consumers are an inextricable mix of their biological and cultural heritages”. In this view, nature acquires properties that enables it to operate via nurture and vice versa. This distinction is further illustrated in studies aimed at establishing a taxonomy of the influences of nature versus nurture on consumers’ choice. This is exemplified in the work undertaken by Saad (2011), for instance, who classifies consumer-related phenomena in a spectrum that varies from human universals (such as human’s preferences for highly caloric and fatty food) to culture-dependant differences (such as culture-specific colour imagery).

Nevertheless, additional research concerning impulsive purchases of food related items in European countries highlighted that although “impulsive buying behaviours are presumed to be universal in nature”, cultural factors play a role in “consumers’ propensity to make such purchases” (Hultén & Vanyushyn, 2011, p. 377). According to the same piece of research, it appears that there are differences between collectivist and individualist countries. As Hultén and Vanyushyn (2011, p. 382) state, “knowing that impulse purchases are a universal phenomenon, it is of interest to continue to analyse country specific traits, which can be identified through cross-country comparisons”. As a result, cultural diversity of participants is prioritised in this investigation in order to gain a multifaceted picture of Generation Z’s impulsive food buying.

### **2.3.13 Context**

The aim of this section is to identify and justify the chosen context of this investigation, the food industry. The previous review of the literature highlighted three main themes that have been investigated from a theoretical perspective, namely hedonic brand cues, decision-making and impulsivity. As a result, the chosen context of this research is first defined, and then is analysed in light of its relations with the abovementioned themes. Specifically, first the hedonic and rewarding properties of food and related hedonic brand cues are examined. Then, the concept of decision-making is analysed in relation to food choices and associated rewarding cues. Finally, interrelations between impulsivity and the food domain are evaluated with specific focus on the hedonic brand cues used in the food industry.

#### **2.3.13.1 Food industry**

Exposure to advertisement is increasingly dictating consumer choice among diverse industries and “an ever-increasing proportion of these advertisements are for food” (Larson et al., 2014, p. 188). This finding comes as no surprise considering that packaged food industry accounts for approximately \$2.4 trillion in 2020 and is expected to reach approximately \$3 trillion by 2023 (Euromonitor International, 2020). Furthermore, consumer expenditure on food has been constantly increasing in the last decade across all the categories reaching the following total expenditures in 2020: bread & cereal (\$1,3 trillion); meat (\$1,5 trillion); milk, cheese and eggs (\$869 billion); vegetables (\$997 billion) fish and seafood (\$487 billion); fruit (\$610 billion); oils and fats (\$236 billion); sugar and confectionery (\$405 billion). Moreover, consumers’ expenditure is expected to grow steadily by 2023 for all the aforementioned food categories (Euromonitor International, 2020). The same positive trend can be observed in both the Western-European market as well as the British post-Brexit referendum market. According to Euromonitor International's (2020) market predictions, the two markets will peak at approximately \$672 billion and \$72 billion respectively by

2023 (as shown in the figure below). Clearly, the packaged food industry and food marketing represent a financial opportunity for food brands (Anselmsson et al., 2007, 2014; Anselmsson & Johansson, 2007; Schau et al., 2009; Tikkanen & Vääriskoski, 2010).

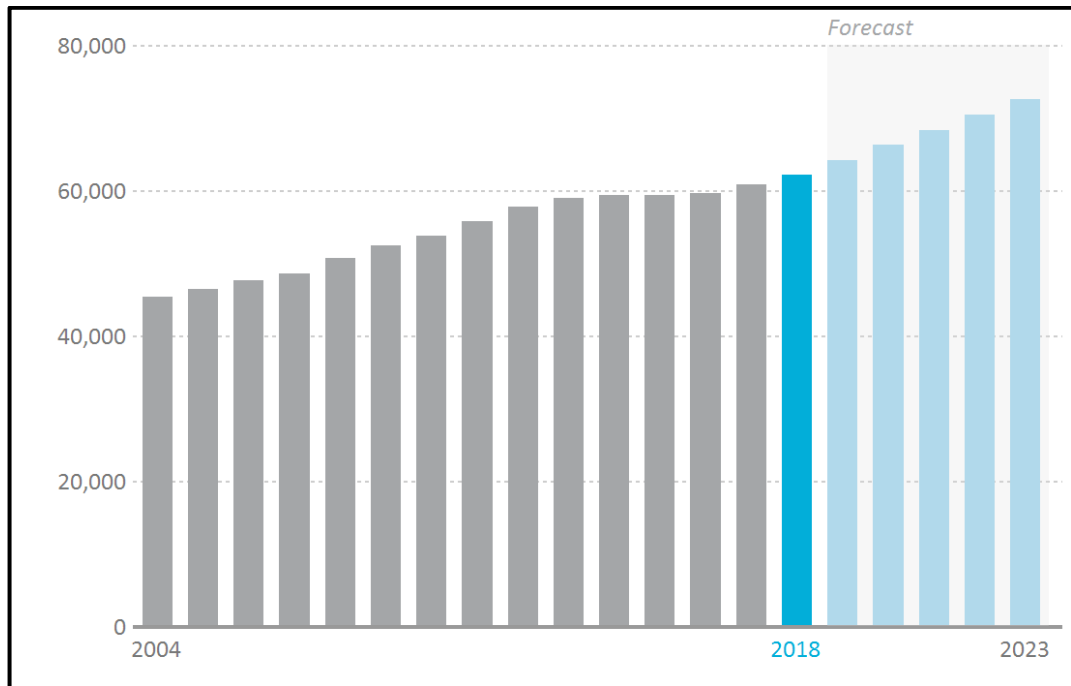


Figure 2: British historical-forecast food packaging value (Euromonitor International, 2020)

Despite the fact that product-related attributes (such as price, distribution, value for money, etc.) play an important role in affecting consumers' choice, increasing literature is focusing on "non-product-related customer perceptions" (Anselmsson et al., 2014, p. 90). The rationale of this shift consists in creating and sustaining a long-lasting competitive advantage that is not based on a counterproductive price war among consumers' packaged food brands. Nevertheless, a clear identification of the factors that affect consumers' perception and consequent behavioural responses is still a matter of debate in the literature (Berger & Shiv, 2011; Brodie et al., 2009; Bruce et al., 2014; Garg & Lerner, 2013; Ladhari et al., 2017). Considering the forecasted financial opportunities related to the food industry, food has been chosen as the context of this investigation. Nevertheless, the abovementioned financial rationale represents only one of the aspects of the chosen industry's justification. As the following sections discuss, the food industry

represents also a suitable context to investigate the causal factors and generative mechanisms of each theme highlighted in the literature, namely: hedonic brand cues, consumers' decision-making and impulsivity.

### **2.3.13.2 Food as hedonic reward**

The context of food has been widely used in research concerning the exploration of hedonic rewards on decision-making in different disciplines such as psychology (Higgins, 2006), socio-biology (Kenrick et al., 2013), neuroscience (Berridge & Robinson, 2003) as well as consumer behaviour (Berger & Shiv, 2011; Plassmann et al., 2012; Simmank et al., 2015) and branding (Anselmsson et al., 2014; Bert, 2013; Bredahl, 2004; Bruce et al., 2014; Hsu & Yoon, 2015; Plassmann et al., 2012).

The interdisciplinary use of the food context in such a wide variety of research related to decision-making is due to the fact that the rewarding (and hence hedonic) power of food is biological in nature and hence, it represents a human universal drive. This finding is supported by functional neuroimaging studies that show the way in which exposure to food cues (across all the senses) activate the brain reward system, the same activation triggered by similar hedonically complex activities such as shopping (Knutson et al., 2007), gambling (Breiter et al., 2001), drug abuse (Volkow, Fowler, Wang, & Swanson, 2004) as well as impulsive eating (Simmank et al., 2015; Volkow et al., 2011).

This finding seems to be aligned to the previously discussed notion that rewards are all processed in the same brain region and food-related cues could trigger a non-domain-specific 'spill-over effect' (e.g. economic impulsivity) (see section 2.3.8 for a discussion of this concept). Since also this research focuses on hedonism, and specifically on hedonic brand cues, focusing on a context investigated for its hedonic and rewarding properties seems to be logically consistent considering its higher potential to provide rich insights on the studied phenomenon. Furthermore, although extensive research has been carried out on

the food domain, research to date has not yet examined the causal factors and mechanisms affecting Generation Z's impulsive buying in the food context.

### **2.3.13.3 Origins of food preferences and related hedonic brand cues**

As previously discussed in section 2.1.7, the 'ultimate' need that individuals have to address in their lifetime is the fact that the required caloric necessities (food consumption) should be assimilated in order to guarantee survival chances (Saad, 2013). This 'ultimate' need takes the form of 'proximate' adaptations that confer people a motivational apparatus in order to satisfy their physiological needs. Moreover, this 'ultimate' need has led to the development of a 'proximate', or hedonic, system that guarantees the satisfaction of a primary need such as food consumption (Alba & Williams, 2013; Garg & Lerner, 2013; Volkow et al., 2011).

"Taste preferences and aversions are adaptive solutions to ancestral survival problems" (Saad, 2013, p. 363). Increasing research highlights that consumers' gustatory preferences for fatty and sugary foods and aversions for bitter and sour tastes are innate adaptations to environmental pressures (Beauchamp & Mennella, 2009). As previously discussed (section 2.1.6), this adaptation may have evolved because in an environment of food scarcity, developing hedonic preferences for high caloric foods may have represented a successful survival strategy. The finding that the top ten food brands offer precisely highly caloric fatty and sugary foods testifies persuasively to the way in which taking advantage of this innate gustatory preference can lead to strong competitive advantages (Saad, 2013). Increasing research is suggesting that these innate instincts may not have had the time to fully adapt to the 'economy of plenty' available in today's markets (Cohen & Bernard, 2013; Griskevicius & Kenrick, 2013; Kenrick et al., 2013; Li et al., 2012; Tifferet & Herstein, 2012). Consumers' unconscious and impulsive responses to "atmospheric cues" (Floh & Madlberger, 2013, p. 425) found in the shopping environment appear to demonstrate precisely this phenomenon (Custers & Aarts, 2010; Dijksterhuis et al., 2005; Martin & Morich, 2011; Miao et al., 2019).

This instinctive hedonic response is so pronounced that the part of the brain that deals with reward (i.e. the reward centre) is not only triggered by gustatory or olfactory brand cues (e.g. the taste or smell of a cheeseburger) but it is also generated by the mere visual representation of it (Simmons et al., 2005). A possible explanation of this phenomenon, as well as of the many other food-related consumers' maladaptive behaviours (such as increasing obesity levels in Western cultures, overconsumption of sugar, type 2 diabetes, etc.), is provided by Barrett (2007). Specifically, it is suggested that individuals' behavioural responses to food stimuli have been hijacked by 'super-stimuli' through a strategically programmed isolation and branding of innate reward-triggering cues. The mismatch between individuals' food-scarce environment and consumers' environment of plenty (e.g. supermarkets, fast foods, 'all-you-can-eat' buffets, etc.) appears to be blamed for causing a misfiring (or hyper-firing) of otherwise positive adaptive processes (Buss, 2015; Nesse, 2004).

The concept of consumers 'foraging' for food among the supermarkets' isles filled with food brands aimed at hijacking consumers' decision-making, for instance, led Wells (2012) to provide useful insights on food-related brand choice. As a result, considering the abovementioned discussion showing the importance of the food domain in the branding-consumers dichotomy, and in light of the causality-oriented approach of this study, the food industry appears to be once again an appropriate context for this investigation as capable of providing information-rich data.

#### **2.3.13.4 Sensorial hedonism in food branding**

The importance of the food domain is also pivotal within the study of consumers' sensorial engagement during the shopping experience. Specifically, as the discussion related to sensorial hedonism shows (section 2.1.8), numerous sensorial brand cues can be used to affect consumers' decision-making within the food domain. Several food brands, for example, attempt to affect consumers' responses by targeting the hedonic tendency of their gustatory senses (Plassmann et al., 2008). Nevertheless, the first encounter a consumer has with

a brand is rarely gustatory in nature. Typically, a consumer is exposed to visual, auditory and olfactory cues before actually tasting the branded product (Krishna, 2012; Larson et al., 2014; Rangel et al., 2008).

Sensory labels, to provide an example, are becoming increasingly widespread in supermarkets in order to affect consumers' choice through visual cues (Berger & Shiv, 2011; Bert, 2013; Petermans et al., 2014; Tifferet & Herstein, 2012). "Juicy oranges rather than Florida oranges; succulent seabass rather than seabass filet" is what appeals to consumers (Krishna, 2012, p. 334). Another example of this phenomenon is provided by Yorkston and Menon (2004) who, analysing the hedonic consumption of ice cream, found that the sound of the brand name could affect brand evaluation. Magnum's sensual ads, on the other hand, targeted consumers' visual apparatus by appealing to their sensuality (i.e. consumers' hedonic love) (Beekman, 2006). On the same note, Coca-Cola ads triggered consumers' sense of friendship and socialisation (i.e. consumers' hedonic in-group membership) (Hemar-Nicolas et al., 2013). The example of sensory signals analysed in the food literature is limitless: brand signature scents, sounds, taste, touch and vision are all examined to better understand and affect consumers' decisions (see section 2.1.8 for a full review of sensory marketing).

As Krishna (2012, p. 347) states, "there is indeed tremendous need for research within the domain of sensory marketing" in areas such as senses interaction, sensory dominance and congruence, sensory conflict and overload. As a result, also this branch of literature suggests that the food context is a suitable candidate to explore the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and consumers' choice. Specifically, as section 2.1.8 discusses in detail, consumers' sensorial engagement during the shopping experience, and respective generative mechanisms, have been investigated in food related choices. Nonetheless, after reviewing the literature it appears that little is known about Generation Z and it is not clear what factors and causal mechanisms affect their impulsive buying within the food domain.

### 2.3.13.5 Consumers' decision-making of food choice

The importance of consumers' decision-making in food related choices has been previously highlighted in section 2.2. Several theories of decision-making have been reviewed in an attempt to identify possible causal mechanisms responsible to trigger impulsive buying. Food choices, remarkably, appear in the literature associated to each single aforementioned theory (Beekman, 2006; Brogan et al., 2010; Foxall, 2010; Parayitam & Dooley, 2009; Shiv & Fedorikhin, 1999; So et al., 2015; Zellman et al., 2010). Nevertheless, as section 2.4 highlights, research to date has not yet determined the generative mechanisms leading Generation Z to purchase food impulsively after hedonic brand cues exposure.

The reason why food has been widely used to study decision-making lies in the multifaceted nature of it. As previously mentioned, food is a natural reward (i.e. positive reinforcement) as it biologically triggers a series of 'ultimate' and 'proximate' processes essential for survival (Kenrick et al., 2013; Saad, 2011, 2013). The nutritional value of food is difficult to question from a biological perspective, it represents the fuel of individuals' life-long energy consumption (Beekman, 2006; Griskevicius & Kenrick, 2013; Volkow et al., 2011; Wells, 2012). Nevertheless, food does not represent only the organic nutrient of our lives. Food can be also an emotional and sensorial experience that takes the form of gastro-tourism, hedonic grocery shopping, *haute cuisine* restaurants, Mediterranean diets, culinary fairs, *gourmet* destination and so forth. Consumers, in a restless search for meaningful experiences, are not satisfied anymore by the mere projection of consuming products. The consumption of culture through food and drinks, for example, has become a fascinating frontier of food brands and the food industry in a wider sense. Consumers expect tradition, passion, heritage and possibly a little share of devotion too (Almerico, 2014).

The context of food-related decisions, in addition, fits with the strategies highlighted in section 2.2. Information processing theory, for example, states that decision-making is a rational process aimed at maximising one's satisfaction. Food brands that stress healthy benefits and rational criteria may appeal to



consumers' cognitive decision-making. Several lines of evidence suggest that consumers' thirst for utilitarian needs is satisfied by brands' functional benefits while brands' subjective and experiential benefits seem to satisfy needs more hedonic in nature (Alba & Williams, 2013; Berridge et al., 2009; Higgins, 2006; Hirschman & Holbrook, 1982; Hume & Mills, 2013; Kang & Park-Poaps, 2010; Plassmann et al., 2012). Similarly, decision-making in relation to food brand choices could be conceptualised in light of the value perspective theory (e.g. price versus quality branded foods); cue utilisation theory (e.g. inferences of brand quality based on brand cues) and the emotional perspective (e.g. choices between reward-oriented versus healthy-oriented alternatives) (see discussion in section 2.2.5 for an in-depth discussion of this concept) (Beekman, 2006; Hansen, 2005; So et al., 2015). As a result, considering the abovementioned multifaceted value of food, and its potential to generate information-rich data, the food domain appears to be the most appropriate context for this investigation.

#### **2.3.13.6 Relation between food cues and impulsivity**

The previous discussion on impulsivity (section 2.3) highlighted an association between high sensitivity to reward and impulsive behaviour (Berlin, 2004; Puri, 1996; Tetley et al., 2010). Murawski et al. (2012) extended this concept to branding demonstrating that subjects subliminally exposed to rewarding (or hedonic) brand cues become more impulsive as a function of the brain's reward centre stimulation. It is interesting to underline for the purpose of this research that this neurological, and hence behavioural, activation of individuals' impulsivity has been observed also in the domain of food. Nevertheless, as discussed in section 2.3, there is a need to further explore the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and Generation Z's impulsive buying in the food domain.

Specifically, it has been suggested that consumers exposed to tempting food-related cues are more impulsive (Brogan et al., 2010), are more prone to 'opportunistic eating' (Hays & Roberts, 2008), are more emotionally unstable (Bryant et al., 2007) and seem to extend that impulsiveness to other contexts of

decision-making such as economic decisions (effect called ‘inhibition spill over’) (Bryant et al., 2008). As Volkow et al. (2011, p. 39) states,

in evolutionary terms, this property [impulsivity] of palatable foods used to be advantageous because it ensured that food was eaten when available, enabling energy to be stored in the body (as fat) for future need in environments where food sources were scarce and/or unreliable. However, in modern societies, where food is widely available, this adaptation has become a liability.

One possible explanation of this phenomenon is that hedonic brand cues that fall within this category (i.e. hedonic food consumption) may be perceived by consumers as conditioned rewards acquired through learning capable of triggering hedonic experiences. A number of studies have postulated a positive correlation between consumers’ hedonic pleasure and consumers’ motivation to perform the related reward-triggering behaviour (e.g. consuming the product or brand that employ the specific hedonic cue) (Berridge et al., 2009; Roesch et al., 2007; Simmank et al., 2015; Van den Bergh et al., 2008; Volkow et al., 2011; Vyncke, 2011). Moreover, additional research suggests that impulsivity is theoretically and biologically interlaced with motivation especially in the food domain (Hausman, 2000; Simmank et al., 2015; Tetley et al., 2010; Van den Bergh et al., 2008). As a consequence, considering that this investigation examines the causal factors and mechanisms affecting consumers’ impulsivity after hedonic brand cues exposure, focusing on the food domain is a suitable fit for this investigation.

#### **2.3.13.7 Generation Z**

According to Vojvodić (2019, p. 105), “generational cohort theory posits that each generation is characterised by somewhat predictable traits directly attributable to events in their formative years”. Although different approaches have been used to categorise consumers groups according to meaningful criteria (Boutsouki, 2019; Mihić & Kursan, 2010; Mittal et al., 2016; Tifferet & Herstein, 2012),

“generational cohort marketing is considered very valuable due to the uniform behavior of cohorts” (Kamenidou et al., 2019, p. 2). The literature on generational segmentation has highlighted that the events and experiences shared by different generations may lead to enduring changes in their values, attitudes and ultimately purchase behaviours (Kamenidou et al., 2019; Özkan, 2017; Priporas et al., 2019; Priporas et al., 2017). As stated by Vojvodić (2019, p. 106), “a generation experiences a common social, political, historical, technological, and economic environment as well as similar significant, defining, or formative life events”.

Although there is no consensus on the exact age brackets that define generational cohorts, much of the literature identifies: Baby Boomers (1945-1964); Generation X (1965-1979); Generation Y, or Millennials (1980-1994) and Generation Z (1995-2010) (Lissitsa & Kol, 2019; Özkan, 2017; Vojvodić, 2019). Generation Z, also known as iGeneration, Gen Z, Gen WII and Zers, are described as being digital natives, open minded, pragmatic, individualistic and socially responsible (Euromonitor International, 2020). In this thesis, Generation Z is used to refer to all the aforementioned terms. Consumers categorised as Generation Z are educated, technologically savvy, less brand loyal, more impulsive and conscious about the importance of the shopping experience (Bassiouni & Hackley, 2014; Van den Bergh & Behrer, 2016; Schlossberg, 2017). According to Priporas, Stylos and Kamenidou (2019) the role of this consumer segment in terms of consumer expenditure should not be underestimated as they will represent 40% of consumers by 2020.

As shown in Figure 3, Generation Z represents a significant percentage of consumers, which is expected to be the largest consumer group by 2030 (Euromonitor International, 2020). Furthermore, among the generations explored by marketers, Generation Z seems to be the least known and yet the one which will represent the most profitable future opportunity (Priporas et al., 2017; Vukić, 2019). Moreover, Generation Z appears to have different preferences from previous generations (Özkan, 2017) and, consequently, it represents to be a

suitable opportunity for extending current knowledge (Priporas et al., 2019). The figures below summarise key characteristics of Generation Z.

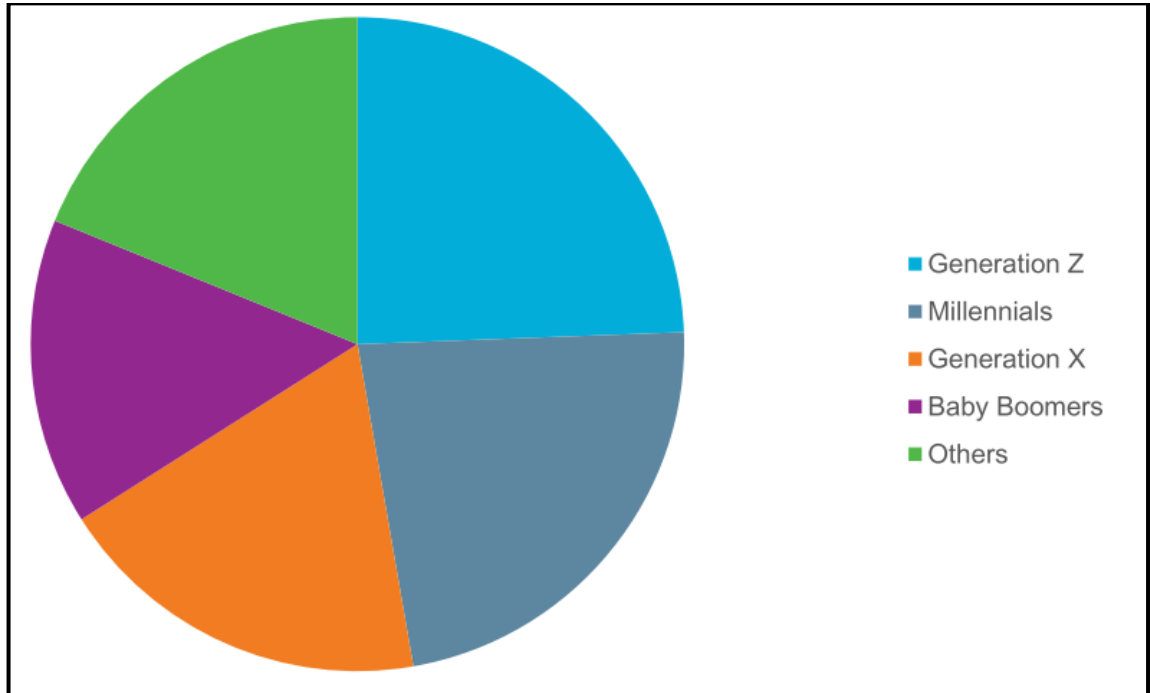


Figure 3: Global population by Generation (Euromonitor International, 2020)

<b>The future driver of the global consumer markets</b>	Generation Z is the youngest generation cohort, but they represent the largest consumer base through to 2030. As Gen Zers will become increasingly influential, businesses need to be prepared for this next generation of consumers and make them part of their business strategy.
<b>Gen Zers' buying power is beyond their incomes</b>	Gen Zers' income today is lower than other generations, but their purchasing power should not be underestimated. Tweens, teens and Young Adults are often a spending priority for families, while they also have significant influence on family purchase decisions.
<b>Digitally native</b>	While Millennials grew up with computers in their homes, Gen Z is the first generation born into a digital world. With their digital prowess, Gen Z expects brands to act digitally native too, creating a seamless and unified experience across in-store, digital and mobile.
<b>Realistic consumers who value quality, authenticity and innovation</b>	Born in a time of economic recession and financial turmoil, Gen Zers are pragmatic and cautious consumers. They prefer products that offer them values and reflect real life. Gen Zers are interested in innovation and entrepreneurship, and look for products to empower them and help them to express their individuality.
<b>High senses of social equality and responsibility</b>	Generation Z is a diverse, adaptive, open-minded and socially responsible generation who wants to make the world a better place. To gain respect and loyalty from Gen Zers, brands need to show their commitments and create a business model that is built on sustainability, equality and acceptance.

Figure 4: Generation Z's characteristics (Euromonitor International, 2020)

Generation Z is characterised by their digital fluency; their impatience and their willingness to be intuitively mobile (Lanier, 2017). Furthermore, they seem to be distinguished by impatient shopping behaviour (Van den Bergh & Behrer, 2016). Considering their exposure to different cultures and influences during their upbringing, Generation Z is considered more open-minded and inclined to promote diversity than previous generations (Smith & Cawthon, 2017). As Vojvodić (2019, p. 109) states, “Generation Z is more responsible, smart, tolerant and inclusive than the millennial generation”. Furthermore, individuals belonging to Generation Z value peer acceptance, confidence and optimism (Chaston, 2012). Finally, as shown in the figure below, Euromonitor International (2020) identifies five key traits that characterise this Generation: digital fluency, individualism, pragmatism, open-mindedness and social responsibility.

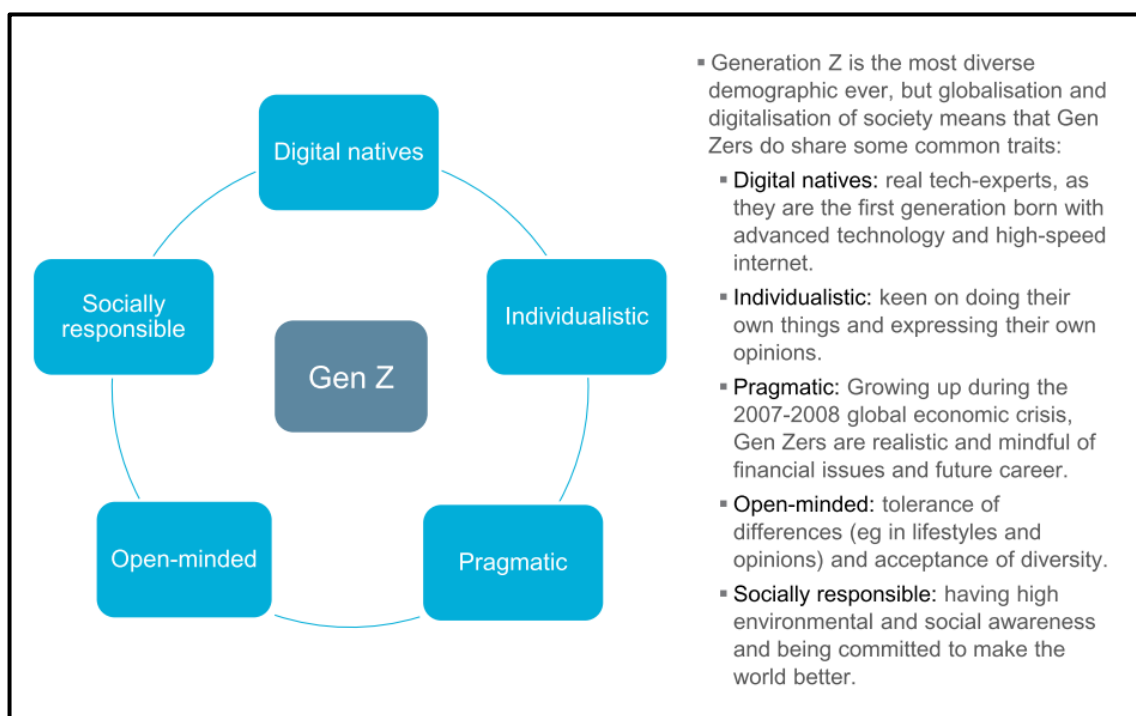


Figure 5: Key traits of Generation Z (Euromonitor International, 2020)

## 2.4 Research gap

From an interlinked analysis of the three main building blocks of this literature review (i.e. hedonic brand cues, consumers' decision-making and impulsive

behaviour) it appears that there are several theoretical causal factors and mechanisms (shown in figure 6) underlying the relationship between hedonic visual brand cues exposure and consumer impulsivity. The review of the literature, however, despite highlighting some of these factors and mechanisms, revealed that additional research is needed. As a result, this investigation explores for the first time the causal factors and mechanisms affecting Generation Z's impulsive food buying after hedonic visual brand cues exposure. Specifically, derived from the reviewed literature, the following research questions are investigated in this study.

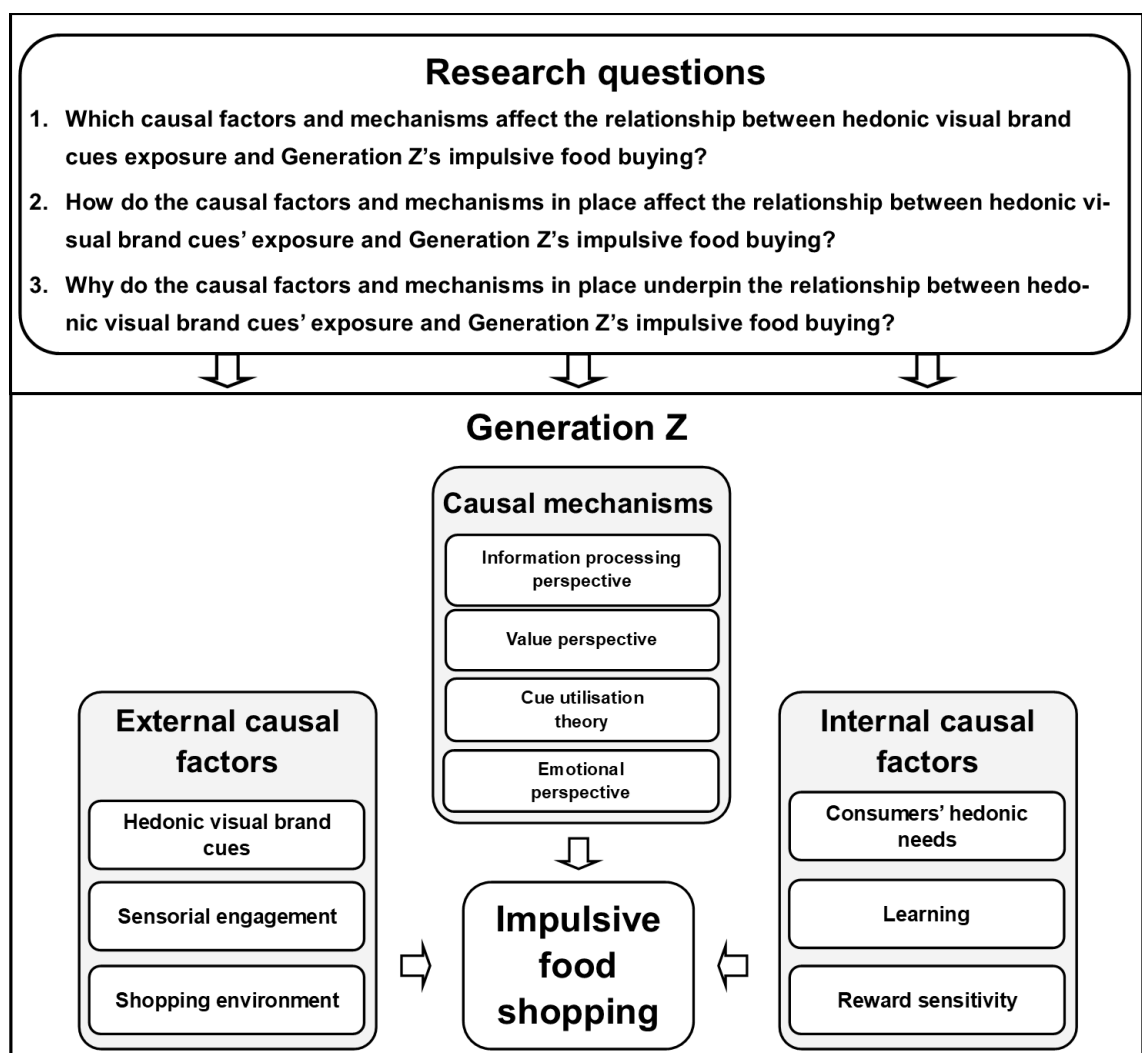


Figure 6: Research questions and conceptual framework

To date, there is a growing body of literature that recognises the significance of examining this phenomenon (Dey & Srivastava, 2017; Kamenidou et al., 2018; Özkan, 2017; Priporas et al., 2017; Santini et al., 2019; Sofi, 2018; Sotodehasl, Amirahmadi, Ghorbani, Masoudian, & Samaei, 2019; Vieira et al., 2018; Vojvodić, 2019; Vukić, 2019). Priporas et al. (2017, p. 375), for instance, state that “there is a dearth of empirical studies in the field of marketing” focused on Generation Z. In addition, Krishna (2012, p. 347) states that “there is indeed tremendous need for research within the domain of sensory marketing”. Moreover, Zhang, Xu, Zhao, and Yu (2018, p. 537) state that “little research sheds light on the antecedents of hedonic value” within impulsive buying behaviour. Furthermore, as Iyer et al., 2019 (p. 18) suggest “the synergistic effects of various communication and promotional elements on impulse buying warrant further exploration”. Finally, Vojvodić (2019, p. 112) suggest that “further research should deal with the influence of retail store environmental cues on Generation Z consumers’ behaviour”.

## **2.5 Summary**

The aim of this chapter was to present a critical review of existing literature on hedonic brand cues, consumers’ decision-making and impulsive behaviour in order to identify relevant theories, concepts and models that can provide a theoretical basis for the causal entities under scrutiny in the primary research. As a result of this review, the research gap has been delineated and the research questions have been refined. The next chapter discusses the adopted methodology in this investigation aimed at gathering primary data necessary to achieve the aim of this study.

### **3 Methodology**

This chapter provides a detailed account of the methodology adopted to address the aim and answer the empirical research questions of this investigation. As discussed in the previous chapter, several theoretical factors and mechanisms underpinning the relationship between hedonic brand cues exposure and consumers' impulsivity have been identified. The methodology presented in this chapter builds on the conceptual framework developed from the literature review and attempts to further expand it. This chapter begins by comparing diverse research philosophies and by discussing the research position in which this study is rooted, critical realism. Specifically, the key tenets of this philosophical position, related methodological implications and research design are debated. Next, data collection techniques are analysed and linked to the research questions of the investigation. Then, sample design and related selection criteria are debated and justified. Moreover, in the following sections, the data analysis strategy aimed at triangulating the collected sources of evidence adopted in this investigation is examined. Finally, in order to assess the credibility and value of the research findings, methodological trustworthiness is evaluated, limitations are discussed, and ethical implications are considered.

#### **3.1 Research positions**

Philosophers have long attempted to define the nature and purpose of knowledge often questioning even its ultimate nature (Deese & Bechtel, 1990; Moñivas et al., 2005; Russell & Fara, 2013). The concept of knowledge, despite providing an apparent connotation of certainty, is in fact subject to idiosyncratic interpretations which define, and frequently redefine, the way to achieve it (Denzin & Lincoln, 2005; Guba & Egon, 1990). Philosophy, in this sense, becomes a lens through which the researcher views the world and studies the phenomena in it. The way in which the researcher perceives and interprets the world, the underlying belief system at the base of their thinking, is in fact likely to influence not only the kind of topics researched, or the way in which they are analysed, but also the nature



itself of knowledge (Deese & Bechtel, 1990; Honderich, 1996; Moñivas et al., 2005). Considering that this research project attempts to contribute to existing knowledge, and in light of the fact that research is defined as the processes and methods employed to achieve systematic observations in order to increase knowledge, the need emerges to examine what knowledge is and how to achieve it (Bryman & Bell, 2015; Saunders et al., 2016). As a result, the study of philosophy becomes essential in the process of research (Brennan et al., 2011) and, hence, it is discussed in this thesis.

“Philosophy of science is the systematic study of how scientific knowledge is produced, substantiated, and used in society” (Deese & Bechtel, 1990, p. 14). Applying this definition to the practicalities of business research, it can be argued that in order to formulate a sustainable research strategy, the philosophical question has to precede the methodological decision (Denzin & Lincoln, 2005). Business research, as a form of social research, needs to be infused by the underpinning philosophical approach of the researcher. The alignment of philosophy with aim, research questions, design, method, analysis techniques, and also literature review and expected contribution, provides consistency to the research. Moreover, an overarching philosophical underpinning enables the author to be coherent with their own belief system, consequently providing a defined holistic research direction (Denzin & Lincoln, 2011).

The three commonly used paradigms in social sciences are constructionism, positivism and critical realism (Sobh & Perry, 2006). Researchers, in the choice of their philosophical position, should be coherent with their own belief system (Honderich, 1996; Moñivas et al., 2005; Saunders et al., 2016; Winterton, 2008). Specifically, the research paradigm should be consistent with the researcher’s assumptions as there is not a predetermined manner to establish the paradigmatic choice. Guba (1991) defines a paradigm as elementary collections of beliefs that inform action. According to Denzin and Lincoln (2011), a paradigm can be defined by three concepts: ontology, epistemology and axiology. As a result, before choosing the most suitable paradigm consistent with the author’s

beliefs, the abovementioned three paradigms are discussed along with their respective identifying parameters.

### **3.1.1 Ontology**

From the Greek *ontos* (existence) and *logia* (study), ontology is defined as a set of notions about the nature of reality (Gordon & Langmaid, 1993). There are two major philosophical perspectives that define the nature of ontology: ontological materialism, focused on an objective and measurable identity of reality and ontological idealism, whose focus concerns subjective and intangible phenomena (Flick, 2009). Saunders et al. (2016) propose the same distinction within business research, differentiating between an “objective” and a “subjective” aspect of this philosophical tenets.

According to this classification, those who support an objective nature of reality understand phenomena as external to individuals’ interpretations, as independent from their existence, consequently restricting the role of the researcher to mere observer (Gray, 2004). Positivism, sharing this assumption, attempts to replicate the natural scientists’ approach to the more unpredictable social sciences contexts by quantifying reality (Moñivas et al., 2005). On the contrary, subjectivists argue that reality is socially constructed, and social phenomena cannot be understood independently from the social actors that generate them. Constructionism shares this worldview and tries to understand phenomena by interpreting reality precisely through these social actors’ respective viewpoints (Bell & Willmott, 2014; Preissle, 2000). Finally, in-between the two spectrums’ extremes of positivism and constructionism lies critical realism. Critical realism, like positivism, supports the idea that there is a reality independent from the mind of the observer, but argues that what individuals experience is the image of that multi-levelled reality and not reality itself (Gray, 2004; Hallebone & Priest, 2008).

### 3.1.2 Epistemology

Honderich (1995, p. 662) defines epistemology as “the branch of philosophy concerned with the nature of knowledge, its possibility, scope, and general basis”. From the Greek *episteme* (knowledge) and *logia* (study), philosophers such as Plato (“Knowledge is the food of the soul”), Aristoteles (“All men by nature desire knowledge”), Descartes (“Cogito ergo sum”), have wondered for centuries what is the true nature of knowledge and how to be certain about it (Moñivas et al., 2005; Preissle, 2000). As a response to this dilemma, and in order to find plausible justifications to precarious belief systems, two main perspectives emerged over the centuries: empiricism (sensory experience related knowledge) and rationalism (reason related knowledge) (Honderich, 1996).

Analysing the main philosophical standpoints in light of the abovementioned distinction (i.e. empiricism *versus* rationalism), different epistemological approaches developed in order to tackle this matter. Positivism, for instance, adopting an enlightenment approach to knowledge development, attempted to reproduce the method of natural scientists into the more unpredictable context of social sciences (Winterton, 2008). In this perspective, deductive hypothesis-testing research and law-like predictive generalisations are likely to be employed to develop statistical knowledge (Perreault, 2011). On the other hand, constructionism prefers inductive techniques in which theory is built rather than tested, techniques that would provide a better understanding of a specific phenomenon in a specific context (Cassell & Symon, 2004; Perreault, 2011). Finally, critical realism focuses on the causal nature of the conditions that enabled a certain phenomenon to take place (Bhaskar, 1986). The explanatory nature of this epistemological approach has the purpose to enable the researcher to understand reality by examining the generative mechanisms of the studied phenomena, by providing them with a deeper knowledge of their cause-effect relations (Danermark et al., 2019; Easton, 2010).

### **3.1.3 Axiology**

Axiology is defined as “a branch of philosophy that studies judgements about value” (Saunders et al., 2016, p. 116). This branch of philosophy discusses whether knowledge should serve a particular purpose or if its only aim is knowledge itself. It also wonders whether the researcher can, or should, carry out research without being affected by its own underlying values (Heron, 1996).

Positivism, promoting a value-free research, argues that subjectivity should be minimised as it affects research validity and reliability. As Remenyi, Williams, Money and Swartz (1998, p. 33) state, “the researcher is independent of and neither affects or is affected by the subject of the research”. Constructionism, in opposition to positivism, argues that it is not possible to research social phenomena without taking into consideration the perspectives of the subjects who generate them. In this light, research is bound to value and becomes a single entity with researchers themselves (Denzin & Lincoln, 2011). Critical realism, on the other hand, focuses on the emancipatory value of research. As a result, research, in this light, becomes value-laden (Bhaskar, 1986).

### **3.2 Critical realism in the current research**

As previously discussed, the choice of a philosophical position should be consistent with the researcher’s beliefs about reality and ways to investigate it. Following a review of the main research philosophies, critical realism is embraced as it shares its paradigmatic assumptions with the author’s beliefs, which are discussed in the following sections. As a result, this research integrates principles and tenets of critical realism. Nevertheless, the rationale of this choice is also rooted in the potential that critical realism has to address the research questions of this investigation. The causally oriented essence of this philosophical position critically resonates with the aim of this study, which is to identify and explore the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z’s impulsive food buying.

Considering the aim of this study, positivist and constructionist philosophies may in fact be less effective in addressing the aforementioned aim. The kind of research questions asked by positivists would be in fact different from the questions asked by constructionists or critical realists. A positivist would focus more on 'what' questions (technicality), a constructionist on 'how' questions (description) while a critical realist on the 'how/why' questions (explanation) (Brennan et al., 2011; Malhotra, 2008).

In line with critical realists' beliefs, this thesis attempts to tap into perceptions and reactions of research participants to further illuminate the causal factors and mechanisms driving their impulsive behaviour. Specifically, hedonic brand cues are examined as potential triggers of Generation Z's impulsive food buying. In addition, in order to address the causal nature of critical realist research, this thesis identifies and explores the nature of the causal factors and mechanisms underlying this relationship.

Critical realism supports the idea of the existence of a reality independent from the mind of the observer, but argues that what individuals experience is not the objective nature of it, but the subjective image of that multi-levelled reality (Easton, 2010; Ryan et al., 2012). According to this philosophical position, the best way to achieve knowledge is through analysing the causes, or generative mechanisms, that originate the studied phenomenon (Danermark et al., 2019; Martin, 2016; Outhwaite, 1987). Finally, in critical realism research is value-laden, and critical realists should aim at minimising repressive sources of domination (Bhaskar, 1986).

Methodological implications of this specific position are discussed in section 3.5.4. Nevertheless, as Denzin and Lincoln (1994, p. 108) state, "questions of method are secondary to questions of paradigm, which we define as the basic belief system or world view that guides the investigation, not only in choices of method but in ontologically and epistemologically fundamental ways". As a result, before examining the methodological implications of the chosen philosophical

position, critical realism is examined in light of the three abovementioned defining criteria of ontology, epistemology and axiology.

### **3.2.1 Critical realism ontological position**

Easton (2010, p. 119) suggests that “critical realism assumes a transcendental realist ontology”. A transcendental realist ontology means that reality is seen as concrete, fundamentally structured, independent from the observer, multi-levelled series of phenomena (diametrically in opposition to the constructionists’ perspective). Nevertheless, in critical realism it is also acknowledged that the nature of social reality in open systems is not completely independent from the subjects who create it, and needs then to be critically analysed considering the interaction knowable/would-be knower (Moñivas et al., 2005).

As Bhaskar (1986) points out, reality in critical realism is stratified (contrarily to positivists’ and constructionists’ ontologies) between the empirical, the actual and the real domains. This interacting discrepancy is the key to longitudinally understand the ontological layers of reality and its respective interrelations. Specifically, in critical realism observable events in the empirical domain are generated by mechanisms in the actual domain influenced by structures and conditions in the real domain. As Bhaskar (1975, p. 56) states,

Events must occur independently of the experiences in which they are apprehended. Structures and mechanisms then are real and distinct from the experiences in which they are apprehended. Mechanisms, events and experiences thus constitute three overlapping domains of reality, viz. the domains of the real, the actual, and the empirical.

A visual representation of the three ontological domains discussed above is provided in figure 7.

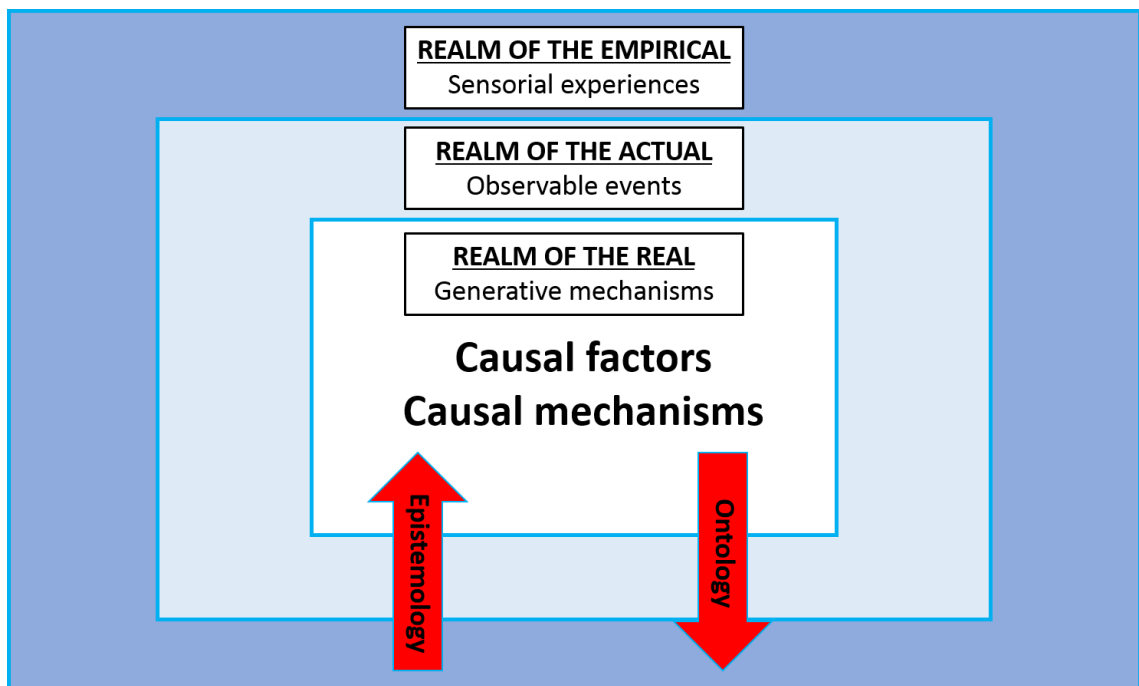


Figure 7: Critical realism stratified ontology (adapted from Bhaskar, 1978)

The understanding of stratified reality is reflected in this investigation. Specifically, consumers' impulsive buying is seen as observable events in the realm of the actual. These events, in turn, have sensorial experiences perceived by consumers' subjectivity (in the realm of the empirical) and causal factors and mechanisms (in the realm of the real). The concept of pre-existing structures in which human agency exerts its will is a recurring theme in critical realism as it has direct repercussions on observable events in the form of human choices (Bhaskar, 1986). The interdependency of social structures (e.g. specific contexts) and human agency (e.g. free will) is then considered in this investigation as it may have implications on the causal mechanisms under scrutiny, namely reinforcing mechanisms and counteracting mechanisms.

### 3.2.2 Critical realism epistemological position

As Easton (2010, p. 119) states, critical realism promotes "an eclectic realist/interpretivist epistemology". Eclectic/interpretivist epistemology signifies that the way knowledge is achieved is through the "examination of the conditions, possibilities, nature and limits of knowledge" (Danermark et al., 2019, p. 206). As

Easton (2010, p. 121) adds, “the most fundamental aim of critical realism is explanation; answers to the question “what caused those events to happen?””. Therefore, critical realists attempt to explain reality, social phenomena included, essentially through understanding the generative mechanisms that produced them. “For CR researchers, one goal of research is to identify the sequence of causation or causal mechanisms at work” (Edwards, O’Mahoney, & Vincent, 2014, p. 24).

Causality is central to critical realists’ focus because it is argued that is only by examining the causal relationships among the realms of the real, actual and empirical that knowledge can be achieved (Bhaskar, 1978). Nevertheless, in critical realism it is suggested that the causal entities, or objects, in the realm of the real cannot be directly observed but need to be inferred by their observable causal effects they produce in the other domains (i.e. actual and empirical) (Collier, 1994; Easton, 2010). Specifically, as Easton (2010) suggests, there are objects in the realm of the real that have powers and liabilities that may or may not be exercised in the realm of the empirical depending on contingent conditions.

As shown in figure 7 above, if ontology emerges from the domain of the real to the domain of the empirical, the role of epistemology is to reverse this process, to identify the causal factors and mechanisms in the realm of the real by observing their effects in the other domains (Bhaskar, 1978). Critical realists propose then a relativist approach to knowledge development as knowledge is seen as a social product (i.e. socially constructed) mediated by human mind. Nevertheless, in critical realism there is a recognition of the fallibility of human knowledge, because knowledge is conceptualised as cumulative (i.e. increasing due to continuous additions). Consequently, knowledge is not absolute but, contrarily, critical realism accepts its limitations and proposes an understanding of it as historically developed (Deese & Bechtel, 1990).



### **3.2.3 Critical realism axiological position**

As Easton (2010, p. 119) states, critical realism adopts “a generally emancipatory axiology”. Bhaskar (1986) states that critical realists should aim at the conversion of undesirable repressive sources of domination into desired liberating ones. In this light, the ultimate purpose of philosophy is to enable science to emancipate humankind. Particularly relevant to this point is the fact that, through a critical realist’s lens, explanation becomes a precondition of emancipation. In other words, the process of understanding is the first phase necessary to enable and promote change (Outhwaite, 1987). In addition, in critical realism it is believed that transformational change can become achievable only by understanding the relations between the different layers of explanation in the realms of the empirical, actual and real (Martin, 2016).

In this research, the author’s interest in the topic has been influenced by his ingrained fascination with human decision-making. Furthermore, the marketing background of the researcher and his values had an impact on the study design in terms of topic selection, research approach and, as the following sections show, data collection, analysis and interpretation. Nevertheless, the researcher’s values, despite being a motivating force for the development of this research project, had the potential to bias the research process and ethical integrity adopted. As a result, in order to satisfy the axiological requirements of this research, a commitment to methodological rigor (discussed in the following sections) with the purpose of contributing to knowledge advancement is enforced in this investigation.

As the following sections discuss, measures to minimise potential bias related to data collection, analysis and interpretation have been taken and sources of information were properly acknowledged. Producing a credible, truthful piece of scientific research based on evidence may have the potential of enabling the reader to understand the studied phenomenon consequently leading to the first step in the direction of emancipation (i.e. explanation is a precondition of

emancipation). Furthermore, participants' confidentiality was respected by following research integrity principles. Finally, the author committed to an emancipatory interest in maximising understanding to enable and facilitate the application of knowledge for the interested stakeholders.

### **3.3 Types of data**

According to Saunders et al. (2016), once the philosophical standpoint has been clarified, the types of data that can be considered need to be discussed. Data are commonly divided in quantitative (typically numerical) and qualitative (typically descriptive) and are generally used depending on one's philosophical perspective. A positivist approach, for example, understanding reality as objective and independent from the observer, would tend to prioritise quantitative data (Adams, Khan, Raeside, & White, 2007). On the other hand, a constructionist approach, explaining reality as 'socially constructed', would usually prefer qualitative data. Critical realism, supports the idea that there is a reality independent from the mind of the observer, but argues that what individuals experience is the image of that multi-levelled reality and not reality itself (Danermark et al., 2019). As a consequence, in critical realism it is allowed the usage of both types of data, permitting also the combination of them.

While quantitative data are better suited for measuring the relationship among the studied variables and generalising findings (breadth of understanding), qualitative data are better suited to gain an in-depth insight of the studied phenomenon (depth of understanding) (Lowe, 2001). Miles, Huberman and Saldana (2014) suggest that by using qualitative data it is possible not only to answer the 'what' question but also the 'how' and 'why' questions. Qualitative researchers in critical realism are fully immersed in the process of inquiry as well as in the analysis stage of the findings. Reality (i.e. ontology) is socially constructed and social phenomena cannot be understood independently from the actors that generate them (Bhaskar, 1975). Phenomena are then analysed by interpreting the world in light of the researcher's and the researched (i.e. the

other's) respective viewpoints (Gordon & Langmaid, 1993; Myers, 2008). As section 3.1.2 shows, according to qualitative perspectives, knowledge can be achieved (i.e. epistemology) through inductive, abductive or retroductive techniques in which theory is built rather than tested, techniques that would provide a better understanding of determined phenomena in specific contexts (Flick, 2009). Moreover, research in this light is bound to value (i.e. axiology) and becomes a single entity with researchers themselves (Heron, 1996).

This is in line with Denzin and Lincoln's (2005, p. 14) argument that suggests that "qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry". Therefore, considering the author's critical realist philosophical position, and in light of the research questions investigated in this study (i.e. 'why' and 'how' questions), qualitative data seem to be more appropriate to this investigation and, consequently, have been chosen in this research.

### **3.4 Research design**

Once the types of data have been chosen, a crucial issue to address in the development of a research strategy is its design. Research design is defined as a logical succession of steps aimed at linking the research questions of a study with its conclusions via the collection, analysis and interpretations of empirical data (Yin, 2014). Different research designs could be adopted depending on specific conditions such as research questions, level of the researcher's control over the investigated events and historical or contemporary nature of the studied phenomena (Yin, 2014). By drawing on this concept, the same piece of research has been able to show that a specific research strategy, case study research, is suitable when (a) 'why' or 'how' questions are investigated; (b) there is no significant control over the studied event; (c) the phenomenon studied is contemporary (Yin, 2014).

Considering that the aim of this thesis is to identify and explore the causal factors and mechanisms (i.e. 'why' and 'how' questions) underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying, the 'why' and 'how' questions are central to this investigation. In addition, although consumers' behavioural responses may be altered through exposure to specific stimuli (see section 2.1 for an in-depth discussion on this issue), the researcher has no control over the generative mechanisms of participants' responses. Moreover, the current nature of the phenomenon studied (as opposed to historical) seems to provide additional justification to select this specific research design. Finally, as Easton (2010, p. 119) states, "critical realism is particularly well suited as a companion to case research" as it enables the identification of the causal and generative mechanisms of the studied phenomenon and hence, it is consistent with the author's philosophical position.

Case study is defined as "an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2014, p. 13). This research design allows the researcher "to retain the holistic and meaningful characteristics of real-life events" as these events are examined in their respective contexts (Yin, 2003, p. 2). As a result, the intentional inclusion of contextual conditions encouraged by this specific research strategy provides additional justification for its selection as it may allow a deeper understanding of the studied phenomenon, which is aligned with the critical realist's ontological position adopted in this investigation (Danermark et al., 2019). Finally, case studies are a recognised strategy of inquiry within business and marketing research in the critical realist domain (Dubois & Gadde, 2002; Easton, 2010; Tjandra, 2013), of which this investigation is an example.

An important aspect of case study research consists in defining its unit of analysis. Examples of units of analysis encountered in the literature include individuals, organisations, programs and decisions (Eisenhardt, 1989; Yin, 2014). The main rationale that the researcher ought to adopt to define the unit of analysis

of a case study should be based on the research questions of the study itself. The selected unit of analysis defines what a case is and what a case is not and for this reason it should be consistent with the investigation's research questions and theoretical propositions. Once the unit of analysis has been defined, however, additional criteria are needed in order to establish further boundaries to the case. Examples of benchmarks include, but are not limited to, sample specifications, geographical boundaries and temporal restrictions. This delineation process has the purpose of distinguishing the phenomenon studied (or case) from the context in which it manifests (external data to the case)(Easton, 2010; Yin, 2014). Considering the research questions of this investigation, and its interrelated aim, consumers have been chosen as the unit of analysis of this case study. Using individuals as unit of analysis is a viable strategy as suggested by Yin (2014). Further implications on sampling technique are discussed in section 3.6.

### **3.4.1 Case studies' architecture**

Case studies can be exploratory, explanatory and descriptive (Yin, 2014). In addition, case studies can rely on multiple sources of evidence using theoretical prepositions to triangulate them. Focusing on how and why questions, case studies can benefit from both quantitative and qualitative evidence in order to provide findings generalisable in the form of analytical generalisation. Although case studies diverge from the spectrum of statistical analysis and deductive hypothesis testing (Yin, 2014), they should not be confused with the purely inductive approaches in which theory is built rather than tested (Ozanne et al., 1992). The role of theory in case studies should be to guide the researcher towards an effective research design capable of clarifying data needed, methods necessary to collect them and suited analysis strategies. Theory in this sense represents a blueprint of the study, which can – and should – be modified depending on the study's findings (Kovács & Spens, 2005).

Nevertheless, the role of theory changes within case studies depending on their design. According to Yin (2014), an important decision that needs to be made when planning a case study is in fact its design, which could be in the form of a single case study or multiple case studies. The former is usually prioritised when the phenomenon studied is rare or the investigation comes in the form of a longitudinal study. Multiple-case studies, on the other hand, are preferred when the phenomenon studied is not unique and hence, the collection of evidence from multiple sources (or cases) is believed to originate a more robust study (Herriott & Firestone, 1983). In addition, case studies can be holistic (single unit of analysis) or embedded (multiple units of analysis).

As the following section clarifies, multiple case studies offer compelling evidence that enables analytical generalisation in the form of literal or theoretical replication and hence are preferred to a single case study design (Eilbert & Lafronza, 2005; Hanna, 2005). Nevertheless, what should be underlined is that individual case studies within a multiple-case study design have the aim of addressing the investigations' research questions, and hence their analysis should be instrumental for that purpose (Yin, 2014). Considering the single unit of analysis chosen for this case study (i.e. individuals), and the abovementioned enhanced analytical generalisation that multiple case studies provide, the selected architecture for this investigation is a holistic multiple-case design (shown in the figure below). Information on the context is provided in section 2.3.13.

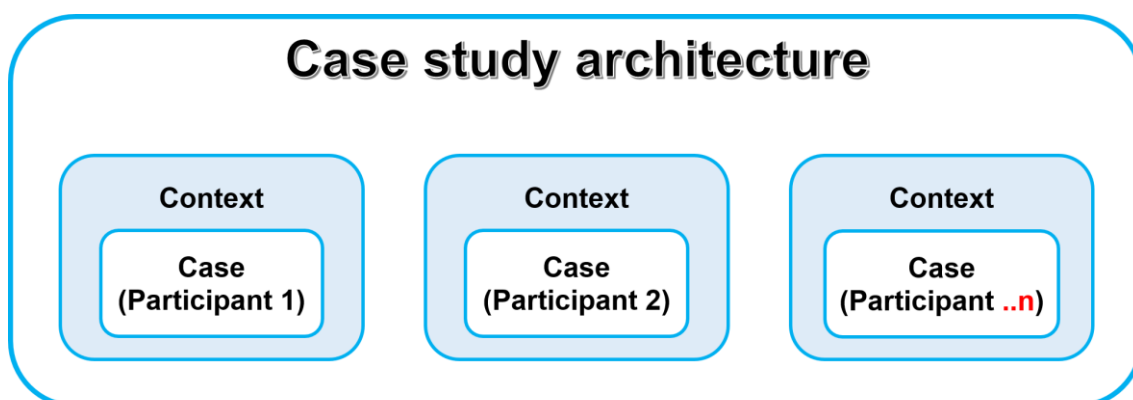


Figure 8: Case study architecture (adapted from Yin, 2014)

### **3.4.2 Literal and theoretical replication**

As previously mentioned, multiple-case studies allow literal and theoretical replications of results. The former type of replication consists of obtaining similar results in different cases under the same conditions; the latter implies obtaining different results in different cases under different conditions. This process enables analytical generalisations of the research findings. Analytical generalisations differ from statistical generalisations in the sense that the former generalises by comparing empirical data with theoretical propositions, while the latter compares empirical data with the wider population. It is suggested that the abovementioned replication logic is comparable to the one used in experimental design (Hersen & Barlow, 1976; Yin, 2014). In addition, Yin (2014) suggests that if case studies provide both types of replication within 6 to 10 cases, there is substantial evidence to support or expand the initial theoretical propositions. Contrarily, if evidence is contradictory, the initial theoretical propositions should be revised.

An essential part of multiple-case studies design is the presence of theoretical propositions that state the way and the conditions in which the studied phenomenon manifests (literal replication) or does not manifest (theoretical replication). In multiple-case studies design, after the development of theoretical propositions, each study is used to collect evidence which should converge to prove, or extend, current knowledge. In addition, each single study (within the multiple-case study) is aimed at collecting evidence as if it was a single case, but then the findings should be replicated (both literally and theoretically) in order to address the initial research questions. Further implications on data collection and sampling technique are discussed in section 3.5 and 3.6 respectively.

### **3.5 Data collection**

According to Saunders et al. (2016), there are two main sources of information: primary and secondary. Secondary sources of information are data collected by different researchers for diverse purposes (Perreault, 2011). Among the

advantages of secondary sources of information, it is possible to note that they are less time consuming than primary data (with respect to their collection) and that they may provide necessary information to address the research questions. In addition, it is suggested that they may represent a prerequisite for primary research (i.e. define questions, sample and methodology) and they may be an effective way for triangulation with primary data (Gordon & Langmaid, 1993). However, secondary data can have also disadvantages, such as being outdated, being intended for different purposes (and then not being pertinent); information on the methodology used may not be provided, and it may be focused on different samples (Winterton, 2008).

In order to establish the theoretical themes informing the literature, a scoping literature review based on the research aim was conducted. According to Levac, Colquhoun and O'Brien (2010, p. 1), "researchers can undertake a scoping study to examine the extent, range, and nature of research activity, determine the value of undertaking a full systematic review, summarize and disseminate research findings, or identify gaps in the existing literature". Developing a preliminary investigation of the literature review had several advantages related to its consequent development. For instance, it helped to relate the research approach to a particular philosophical standpoint, consequently locating the planned research in its theoretical and practical context. Furthermore, it guided the realisation of the completed literature review by highlighting the main emerging themes and their respective interactions. Finally, it led to the development of appropriate inclusion/exclusion criteria to achieve a healthy balance between literature breadth and depth (Bryman and Bell, 2011). The review of the literature, despite identifying several causal factors and mechanisms potentially influencing consumers' impulsive buying, revealed that additional research is needed. As a result, this indicated a need to collect primary data.



### 3.5.1 Primary sources of information

Primary sources of information are data collected first hand with the aim of addressing the aim and the research questions of the investigation (Perreault, 2011). There are several advantages related to the use of primary sources of information, namely: there is more control than secondary research; the information obtained is recent; the information obtained is generally more relevant than secondary data; the obtained data can be analysed in light of the secondary sources of information (Gordon & Langmaid, 1993). Among the disadvantages it is possible to note that primary data can be expensive to obtain in economic or temporal terms and there may be errors or bias in the collection and interpretation of data (Freedman, 2000; Preissle, 2000).

Saunders et al. (2016) suggest that in order to develop a proper research strategy, research purpose, approach and methods need to be discussed and justified. The table below summarises the chosen parameters for this study. Each element shown in the table below is singularly analysed in the following sections in order to provide a better understanding of the selected research strategy. In addition, the chosen research methods, related advantages and disadvantages and appropriate measures to minimise potential weaknesses are explained and justified.

<b>Research purpose</b>	<b>Research approach</b>	<b>Methods</b>
Explanatory	Retroduction	Qualitative multi-method design: Observation Semi-structured interviews Online diaries

Table 2: Research purpose, approach and methods

### **3.5.2 Research purpose**

The purpose of this research is explanatory. The reason why 'explanation' is pursued is both founded on the author's philosophical standpoint and on the nature of the phenomenon studied. In critical realism, explanation is ingrained in the way research should be conducted. Critical realists achieve knowledge through the "examination of the conditions, possibilities, nature and limits of knowledge" (Danermark et al., 2019, p. 206). As Easton (2010, p. 120) argues "the most fundamental aim of critical realism is explanation; answers to the question "what caused those events to happen?"". Consequently, critical realists focus is not only on the phenomenon itself, but especially on the generative mechanisms that caused it. In addition, the selected research design of this investigation, case study research, is well suited to provide explanation of a given phenomenon (Easton, 2010; Toomer et al., 1993). As a result, in line with the adopted philosophical position, and in light of the chosen research design, this study pursues explanation by investigating the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying.

### **3.5.3 Research approach**

Research approach can be defined as the connection between the mode of enquiry and the existing theoretical understanding of the studied phenomenon (Winterton, 2008). The most common research approaches are deduction, induction and retroduction (Belfrage & Hauf, 2017; Welch & Patton, 1992). Deduction is typically used in positivist research and consists in deductive hypothesis-testing of theory in order to achieve law-like statistical generalisations (Perreault, 2011). Induction, on the other hand, is typically used by constructionists and consists in building theory from data rather than testing it (Cassell & Symon, 2004; Perreault, 2011). Retroduction, alternatively, focuses on the causal nature of the conditions that enabled a certain phenomenon to take

place and has the purpose to examine this cause-effect mechanism by “moving backwards” (Easton, 2010, p. 123).

Consistent with critical realism, this investigation adopted a retroductive approach. Danermark et al. (2002, p. 206), define retroduction as

a thought operation involving a reconstruction of the basic conditions for anything to be what it is, or, to put it differently, it is by reasoning we can obtain knowledge of what properties are required for a phenomenon to exist.

Retroduction attempts to understand the studied phenomenon by asking the question: “what must be true in order to make this event possible?” (Easton, 2010, p. 123). As Danermark et al. (2002, p. 206) state, retroduction should be through the “examination of the conditions, possibilities, nature and limits of knowledge”. As Sayer (2000, p. 14) argues, “in both everyday life and social science, we frequently explain ‘things’ by reference to causal powers”. Moreover, Easton (2010, p. 119) suggests that “the fundamental tenet of critical realism is that we can use causal language to describe the world”. This intentional causal-thinking approach to reality aimed at penetrating the three aforementioned ontological layers (empirical, actual and real) has, in turn, profound repercussions on the way knowledge is achieved, and on the meaningful level of causality necessary for a certain event to happen (Fleetwood & Hesketh, 2010).

As previously discussed, in the critical realism epistemological position (section 3.2.2), the ultimate purpose of retroduction is to understand a given phenomenon by identifying which unobservable causal entities, powers and mechanisms (either exerted or not) in the realm of the real cause observable events in the realm of the empirical (Bhaskar, 1986). The role of theory in retroduction is to guide the investigation towards an initial identification of the generative factors and mechanisms involved in the studied phenomenon (Belfrage & Hauf, 2017). Furthermore, theory has the purpose of enabling a deeper explanation of the factors and mechanisms at play. Nevertheless, since in critical realism knowledge

is progressively developed, it is acknowledged that theory may be further expanded (Edwards, O'Mahoney, & Vincent, 2014).

### **3.5.4 Research Methods**

This investigation adopts a triangulated multi-method qualitative approach. Specifically, consistently with case study designs, primary data were collected by combining multiple sources of qualitative evidence (Yin, 2014). The reason why this multi-method approach is selected is routed in the author's critical realist philosophical position, as well as in the aim and objectives of the research. Relying completely on a single source of evidence, despite providing a potential causal explanation of the studied phenomenon, may lack the necessary scope to gain an in-depth understanding of the chosen case (Yin, 2014). Conversely, a multi-method approach, allowing triangulation of convergent lines of theoretical and empirical evidence, may enable the creation of a network of cumulative evidence capable of answering the research questions in a valid and reliable manner.

Consistently with case study research, Yin (2014) suggests six methods as valid sources of evidence, namely: documentary information, interviews, archival records, physical artefacts, participant observation and direct observation. Nevertheless, it is noted that the complete toolkit available to the case study researcher should not be limited by the number or kind of the abovementioned methods. Notably, what seems to be relevant in the choice of evidence is the potential it has to answer the research question(s) (Saad, 2017; Toomer et al., 1993). Therefore, the sources of evidence chosen in this investigation have been selected as a function of their potential to address the research questions. Specifically, observation of participants' shopping behaviour; semi-structured interview aided by photo elicitation and projective techniques; and online conversation via social media (WhatsApp and Facebook Messenger) have been adopted.

The chosen research methods were informed by the themes developed in the literature review, but they were designed in a way that enabled the identification of emergent factors, causes or mechanisms that may not be theoretically established. As a result, there was a dyadic and iterative relationship between theory on one side and multiple sources of empirical evidence on the other in order to reach a deeper understanding of the studied phenomenon (Sobh & Perry, 2006). The thematic rigour informed by the literature review combined with the flexibility of the chosen methods had the purpose of shedding light on the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and Generation Z's impulsive food buying. As shown in the figure below, the employed methods have been designed to build on each other in order to deepen progressively the holistic understanding of the causes of participants' impulsivity. Although a detailed description of the methods used is provided in the following sections, the rationale of their choice is summarised below.

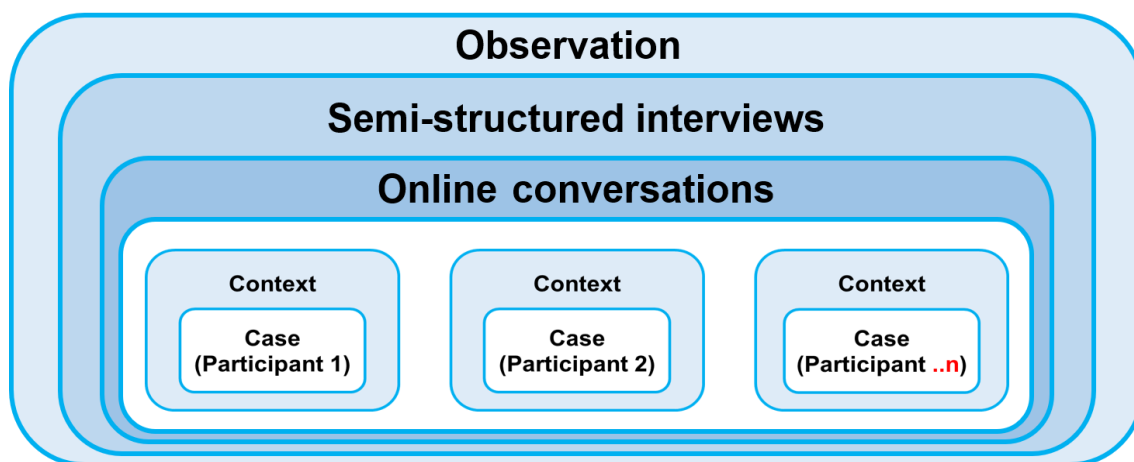


Figure 9: Methods' architecture

As a first source of evidence, in-store observation of participants' purchase behaviour was employed. The main advantage of using this method is that it enables the researcher to observe behaviour directly rather than inferring it from participants' responses (Winterton, 2008). In addition, consistent with case study

research, observation of participants' behaviour in their purchase environments (i.e. supermarkets), allowed the researcher to investigate the context in which the studied phenomenon takes place (Yin, 2014). Furthermore, the findings obtained from the observation guided the fine-tuning of the additional methods employed in this investigation: semi-structured interviews and online conversations (Flick, 2009; Iphofen & Tolich, 2018; Winterton, 2008). Nevertheless, considering that only observable behaviours could be noted (i.e. the domain of the empirical), this method was employed first in order to lay the basis for developing a progressing deepening of understanding of participants' impulsivity through the other sources of evidence used in this study.

As a second source of evidence, semi-structured interviews with photo elicitation and projective techniques were used. Interviews are effective methods to collect qualitative data and are particularly suited for case study research (Yin, 2014). Projective and visual approaches have enabled the research participants to release subconscious information related to the causal factors and mechanisms affecting their impulsive food buying (Bond & Ramsey, 2010). This approach has been increasingly used in the literature especially as part of a multi-method design (Banks, 2001; Davison et al., 2012; Parker, 2009; Warren, 2009). This method enabled the collection of in-depth granular data on participants' impulsive food buying, including the visual images that triggered their impulsivity.

Consistent with the multiple qualitative design encouraged by case study research, an additional source of evidence used in this thesis came from participants-driven diaries. "Computer-mediated communications" (Kozinets, 2002, p. 61) have acquired increasing attention in the literature as a technique to explore different aspects of consumer behaviour (Kozinets, 2006, 2015). This method has been beneficial to gather data on impulsive food buying during the purchase event without the need of the researcher being physically present. Furthermore, participants could share their experiences explaining the causes that led them to do so. Finally, the usage of the participants-driven diaries enabled

the participants to share visual images with the researcher, which, in turn, were used as prompts in order to gain additional insights into their responses.

The evidence collected from these methods enabled the researcher to triangulate the obtained data in order to offer an in-depth holistic understanding of the studied phenomenon (Toomer et al., 1993). Triangulation of data sources led to the creation of converging lines of enquiry capable of enhancing findings trustworthiness and to reduce possible biases associated to findings interpretation (Yin, 2014). Furthermore, the originated themes were triangulated also with the literature which enabled the analysis and discussion of findings, as well as the achievement of analytical generalisations. Finally, data obtained from different sources is consistent with critical realist mode of inquiry as it allows to capture a more accurate picture of reality (Martin, 2016).

#### **3.5.4.1 Observation**

As Saunders et al. (2016, p. 288) state, “observation involves: the systematic observation, recording, description, analysis and interpretation of people’s behaviour”. According to Flick (2008), all the researcher’s senses can be used to obtain an insight into the studied phenomenon which, in turn, should not be affected by the researcher themselves. “Simple observers follow the flow of events. Behavior and interaction continue as they would without the presence of a researcher, uninterrupted by intrusion” (Heigham & Croker, 2009, p. 309).

Several lines of evidence suggest that five dimensions characterise observation: cover versus overt; participant versus non-participant; systematic versus unsystematic; natural versus artificial contexts and self-observation (i.e. reflexive) versus observing others (Catterall, 2000; Heigham & Croker, 2009; Murray, 2010). In order to guarantee findings credibility and trustworthiness, and in light of the ethical considerations listed in section 3.9, this thesis adopted the following kind of observation: overt, participant, unsystematic, in a natural context (i.e. the

supermarket) and aimed at others. In order to facilitate the categorisation of the observed behaviour, the following guidelines were used:

	<b>Behaviour observed</b>	<b>Interpretation</b>	<b>Participant's comments</b>
<b>Participant 1</b>			
<b>Participant 2</b>			
<b>Participant n</b>			

Table 3: Observation guidelines (adapted from Saunders et al. 2016)

Participants were informed that they would have been shadowed by the researcher in order to observe their purchase behaviour. Furthermore, they were informed that there would have been a subsequent interview aimed at both clarifying emergent issues previously observed and explaining certain aspects of their purchase behaviour. Since the type of observation employed was purposely participatory, the subsequent interview was essential in order to explore the meaning that participants attached to their behaviour (Catterall, 2000; Ozanne et al., 1992). The questions asked were aimed at probing specific participants' responses such as non-verbal communication, specific food choices and particular phenomena that attracted the researcher's attention.

The findings obtained through observations of participants' behaviour allowed the participants to enhance the process of familiarisation with the researcher, which consequently enhanced the findings trustworthiness and credibility (Tracy, 2010). Furthermore, the themes emerged from the findings allowed the researcher to explore the phenomenon under investigation by obtaining a holistic understanding of participants' purchase behaviour. Finally, the observation findings served as a basis to guide the refinement of the remaining methods employed in this research, semi-structured interviews and online conversations (Flick, 2009; Iphofen & Tolich, 2018; Winterton, 2008).



The observation took place in Edinburgh between August and September 2017 and several supermarkets chosen by the research participants were involved in the study, including Tesco, Sainsbury's, Lidl, Scotmid and Morrisons. The data obtained, including visual images taken during observation, were transcribed and uploaded to NVivo in order to be coded and triangulated with the additional data collected from semi-structured interviews and online conversations. Potential limitations to this method include the 'observer effect' which may influence participants' behaviour, as well as the researcher's interpretation of participants' responses (Robson, 1997). Possible measures to minimise the abovementioned limitations included 'habituation', which consists in spending time with the participants in order to enhance familiarisation with the practice of being shadowed, and participants' explanation of the researcher's interpretation of their behaviour.

#### **3.5.4.2 Semi-structured interviews**

Kvale (2013, p. 2) defines interviews as "a specific form of conversation where knowledge is produced through the interaction between and interviewer and an interviewee". As Edwards et al. (2014) state, in critical realism interviews are theory-driven following a thematic approach. This finding is also supported by Pawson (1996, p. 299) who argue that the purpose of the interviews is to "confirm or falsify and, above all, refine that theory".

Following the literature review, three main themes emerged, namely hedonic brand cues, consumers' decision-making and impulsivity. As a result, the developed interview questions were designed to investigate the thesis' research questions in light of the literature themes, and hence have been structured accordingly (see appendix 8.1). Furthermore, the findings gathered from the observation of participants' behaviour provided additional evidence that enabled the refinement of the interview questions aimed at investigating emerging themes. As a result, the review of existing literature, as well as the emergent evidence from participants' observation, provided thematic rationale to develop the interview questions. Nevertheless, the questions asked had enough elasticity

to explore also novel and meaningful information (interview questions provided in appendix 8.2). Interviews were conducted over a period of three months between October and December 2017 and were undertaken in the study rooms at Craiglockhart campus of Edinburgh Napier University. The principle of data saturation (discussed in section 3.6) was used to determine the sample size (Liamputtong, 2013).

As every other method, interviews have advantages and disadvantages. Among the advantages, it is possible to note that they may provide opportunity for instant feedback, complex answers may be probed, participation rate may be enhanced and visual aids can be used to increase participants' engagement and commitment (Banks, 2001; Catterall, 2000; Winterton, 2008). Among the disadvantages, it is possible to highlight that they are time consuming, the interviewers could influence participants' answers and the anonymity of participant could be compromised. In addition, there may be errors or biases in the collection, transcription and interpretation of data (Flick, 2009; Hallebone & Priest, 2008). Potential measures used to minimise the aforementioned disadvantages included interviewer's and interviewees' preparation, use of neutral words, anonymisation of findings, easy instructions and a semi-structured approach. Moreover, the interview was piloted before the actual data collection stage (Catterall, 2000; Winterton, 2008).

#### ***a. Photo elicitation***

Denzin and Lincoln (2005, p. 9) state that qualitative research does not "have a distinct set of methods or practices that are entirely its own. Qualitative researchers use semiotics, narrative, content, discourse, archival and phonemic analysis, even statistics, tables, graphs, and numbers". Among the possible methods available, it is possible to find photo elicitation which consists in using photographs or any other visual material to trigger a response during an interview (Venkatraman & Nelson, 2008). Harper (2002) argues that also drawings, cartoons and maps can be used to elicit a response from the interviewees.

As a result, in order to enhance participants' engagement and elicitation, visual images in the food domain were used during the semi-structured interviews. Nevertheless, the visual prompts used were not collected by the researcher. On the contrary, the employed images were collected by the participants themselves. Participants' driven content used in semi-structured interviews, as opposed to researcher's selected images, has been used in the consumers' research literature in order to enhance elicitation (Coulter et al., 2001). Participants' engagement through self-generated content may serve as a way of triggering deeper emotional experiences and mental associations, which, in turn, can improve findings trustworthiness (Harper, 2002; Parker, 2009). The image below, taken during interviews, displays a typical interview setting in which participant-driven visual images were used to enhance elicitation.

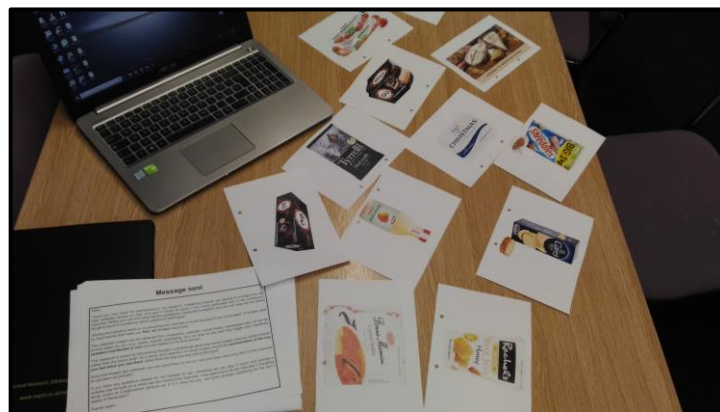


Figure 10: Interview setting

As Coulter, Zaltman and Coulter (2001, p. 2) state, informant-driven data enable the interviewees to freely express their feelings, emotional states and perceptions about the studied phenomenon. Therefore, considering the increased elicitation that self-generated visual prompts may create, the usage of visual stimuli in semi-structured interviews was informant-driven in order to enable the interviewees to explore and externalise their subjective emotions and feelings related to their impulsive processes (Malhotra, 2008; Zellman et al., 2010). In order to minimise the risk of participants' misinterpretation, clear guidelines were provided. Specifically, the following instructions were given to the research participants two weeks prior to the interview:

During the following week or so preceding the interview it would be ideal if you could select 12 rewarding images used by food brands that trigger your impulsivity.

The rewarding images can be retrieved from magazines, websites, social media, newspapers (etc.) or can be photos taken by you (e.g. labels, specific packaging, etc.) as long as you feel they trigger your impulsivity and are related to the food domain.

This research is aimed at discovering thoughts and feelings about the visual images used by certain brands rather than the brand itself. As a result, your selection of visual images should be representative of the way you feel when you see them rather than the way you feel about the brand.

Once the images are collected, you can send them to me so I will print them and bring them to the interview to use them as prompts.

### ***b. Projective techniques***

Considering the elusive, and often unconscious, nature of the phenomenon studied (Custers & Aarts, 2010; Dijksterhuis et al., 2005; Martin & Morich, 2011; Murawski et al., 2012), the semi-structured interviews employed an additional technique aimed at eliciting participants' unconscious feelings and motivations: projective techniques. Projective techniques, which are based on the psychoanalytic replicas established by Sigmund and Anna Freud, are tools intended to reach the insentient motivations of human behaviour triggering emotional responses (Freud & Strachey, 1962; Hume & Mills, 2013). Specifically, subjects that participate in investigations adopting projective techniques are shown ambiguous stimuli and are requested to interpret them. Nevertheless, consumer researchers advocate that the elucidations of the used stimuli are metaphors not for the stimuli themselves, but for the consumers' own insentient perception and motivations (Gordon & Langmaid, 1993).

The benefit of this approach is that they have a high score in uncovering subconscious information in the form of consumers' own emotional drivers (Bond & Ramsey, 2010). According to Malhotra (2009), these techniques evade the participants' rational awareness and enable them to express their feelings and emotions related to particular stimuli. As Gordon and Langmaid (1993, p. 89) suggest, projective techniques "are not psychological mumbo-jumbo but an invaluable aid to reaching below superficial, rationalized responses in a way that is perfectly acceptable to respondents themselves". Therefore, their integration within the semi-structured interview appear to be an effective tool to identify and explore the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and participants' impulsivity. Although the complete interview is provided in appendix 8.2, the typology of questions asked to the research participants is discussed in this section. Gordon and Langmaid (1993) categorise projective techniques into five main classes: association, completion, choice ordering, construction and expressive. As the following sections show, all the above-mentioned categories have been used during semi-structured interviews.

Association techniques (questions 1 and 2) in the form of word association and brand personification are the "best warm-up and encouragement" tasks for participants, and hence they were used at the beginning of the interview in order to enhance participants' engagement (Gordon & Langmaid, 1993, p. 112). The aim of these techniques was to encourage participants to freely associate intuitive mental jumps and connections in order uncover valuable insights in relation to the provided question.

In the sentence completion tasks (question 3), interviewees were asked to complete the given sentences. Several lines of evidence suggest that the way in which participants complete the provided stimuli offers an insight of the participants' feelings and emotions about the investigated phenomenon (Bellak, 1956; Gordon & Langmaid, 1993; Semeonoff, 1990). These tasks were designed

to investigate participants' causal factors and mechanisms affecting their impulsive buying.

Choice ordering questions (questions 4 – 5 – 6 – 7) were designed to enable participants to express meaningful information by ordering and describing the visual images that they had previously collected. Previous research has established that the process of sorting images according to meaningful criteria, labelling them and describing them can reveal participants' deep emotional connections and cognitions towards the studied phenomenon (Billig, 2017; Donoghue, 2010).

Construction techniques (questions 8 to 28), in the form of third-person questioning, bubble drawings, picture-response techniques and missing images, have the purpose of providing a prompt to engage in a conversation with the researcher who then investigates relevant and meaningful participants' responses. The visual and graphic prompts are aimed at enabling the participants to express their inner feelings without being socially judged. Responses, even in this case, were discussed and probed with interviewees in a subsequent less structured interview (Doherty & Nelson, 2010; Donoghue, 2010).

Finally, expression techniques (question 29), in the form of storytelling, is the least structured method of inquiry as it leaves to the respondents a completely unrestricted opportunity to express their imagination in relation to the chosen visual stimuli. Specifically, participants were asked to tell a story based on one of their images that described their thoughts and feelings about impulsive buying. Using this approach, researchers have been able to get an insight on the way participants construct their answers consequently assessing subconscious motivations and emotions (Bellak, 1956; Gordon & Langmaid, 1993; Semeonoff, 1990).

### **3.5.4.3 Online diaries and conversations**

Diaries are part of a specific data source, documents, which are defined as artefacts that can occur in diverse formats such as contracts, notes, diaries, statistics and letters (Prior, 2003). According to Lincoln and Guba (1985) a distinction between documents and records needs to be further highlighted as the former are created by personal activities while the latter can be obtained from political and administrative contexts. As the focus of this investigation is on identifying and exploring the causal factors and mechanisms underlying the relationship between hedonic brand cues exposure and participants' impulsive food buying, consumer-driven diaries have been selected as a source of evidence. Specifically, diaries as a form of personal document were used as a complementary strategy to gain in-depth understanding of the studied phenomenon (Flick, 2009; Heigham & Croker, 2009).

Although this method has been successfully employed in an 'offline' context in order to gain valuable information about participants' lived experiences, perceptions and motivations, increasing research in consumer behaviour and branding is adopting "computer-mediated communications" (Kozinets, 2002, p. 61) as an enabler to shed light on emerging consumers' phenomena (Kozinets, 2006, 2015). Online communications have several advantages compared to 'offline' methods, such as cost-effectiveness, absence of geographical barriers, speed of interaction, creation of immediate text file, increased open-mindedness of participants (as they do not feel socially judged) and enhanced engagement of tech-savvy participants. Among the disadvantages of this method, it is possible to note the lack of non-verbal interaction, ethical issues and difficulty to sustain it over a long period of time (Gaiser & Schreiner, 2009; Kozinets, 2015; Strickland et al., 2003).

Several lines of evidence seems to suggest that there are two main kinds of online communication: asynchronous and synchronous (Gaiser & Schreiner, 2009; Murray, 2010; Winterton, 2008). The former allows participants to communicate when most suitable for them (e.g. e-mail) while the latter consists of a

simultaneous communication (e.g. real time chat room). This thesis adopted an asynchronous type of online diary in order to provide the research participants with enough time and freedom to engage with the task. Specifically, Facebook Messenger and WhatsApp conversations were created with participants in order to gain additional understanding of their feelings and motivations in relation to their impulsive buying as outcome of hedonic visual brand cues exposure. The online conversations lasted a total of three weeks as no new information or themes were found in the data (Murray, 2010). The following instructions were given to the research participants prior to beginning the online diary:

During the time in which you take part in this research please use Facebook Messenger or WhatsApp to record your thoughts, feelings, perceptions and motivations in relation to your impulsive behaviour (manifested or controlled) towards food-related purchases. As we have previously seen, this research focuses on the images used by certain brands rather than the brand itself. As a result, it would be ideal if you could share with me your thoughts, feelings, perceptions and motivations about food-related purchases as an outcome of brand images' exposure.

The idea of this method is to speak to me to share your thoughts and feelings whenever you feel like it (e.g. during the purchase event, when you think about food, after you have bought something on impulse, etc.). The atmosphere will be informal and since we will have this conversation on Messenger (or WhatsApp), I will be interacting with you. In addition, if you wish, you could share pictures that illustrate rewarding images used by specific brands that make you feel or act impulsively. As in the interview, the collected pictures can be retrieved from magazines, websites, social media, newspapers or can be photos taken by you as long as they trigger your impulsivity and are related to specific food brands.



### **3.6 Sample design**

Saunders et al. (2016) suggest that the subsequent step in research planning is the definition of a sample. Consistent with the case study design, and aligned with the critical realist strategy of inquiry, purposive sampling was selected as a sampling strategy (every member of the sample frame has an unknown probability of selection) (Collier, 1994; Danermark et al., 2002; Yin, 2014). Purposive sampling in qualitative research is widely accepted as an effective sampling strategy (Teddlie & Yu, 2007; Welch & Patton, 1992). “Purposive sampling refers to the deliberate selection of specific individuals, events, or setting because of the crucial information they can provide” (Murray, 2010, p. 11). As Patton (2002, p. 230) observes, “the logic and power of purposeful sampling lie in selecting information-rich cases for study in depth”. According to this logic, “information-rich cases” are analysed in-depth in order to obtain insightful information aimed at answering the research question. Considering that the unit of analysis of this investigation has been selected in order to answer the research questions, purposively selecting “information-rich” cases represented a logical conclusion based on philosophical position, research design and research questions (Liamputtong, 2013; Patton, 2002; Yin, 2014).

Several strategies used by qualitative researchers to select purposively the participants can be found in the literature. Typical case sampling, for instance, attempts to select cases that are typical of the phenomenon studied (Welch & Patton, 1992). Extreme case sampling, on the other hand, focuses on selecting cases that differ widely from the average case (Teddlie & Yu, 2007). Furthermore, maximum variation sampling attempts to obtain an in-depth understanding of the phenomenon studied by selecting an heterogeneous sample, while homogeneous sampling’s focus is diametrically opposed (Murray, 2010). Moreover, criterion sampling suggests selecting cases that meet prearranged criteria essential to answer the research question. Finally, confirming and disconfirming sampling strategy advocates to keep selecting cases until data saturation is reached in order to confirm the theoretical propositions while

disconfirming rival explanations (Murray, 2010; Welch & Patton, 1992). In addition, it is argued that in qualitative research more than one strategy can be employed as long as the selected cases are “information-rich” cases providing in-depth information valuable to answer the research question.

### **3.6.1 Study sample**

This research embraces a multiple sampling strategy by adopting a multistage purposeful sampling. Multistage purposeful sampling consists in using more than one purposeful sampling strategy to identify the most “information-rich” cases (Palinkas et al., 2015). This sampling logic begins with a focus on sample variation and then narrows down the cases by selecting those who possess the greater amount of information necessary to answer the research questions. This “funnel approach” has then the purpose to move from a heterogeneous sample to a homogeneous one capable of providing in-depth information on the studied phenomenon (de Munck, 2000; Palinkas et al., 2015).

The rationale behind the choice of a multistage purposeful sampling lies in the fact that it allows the researcher to discover and select the most “information-rich” cases without knowing sample variation *a-priori*. “To set as the goal the sampling of information-rich informants that cover the range of variation assumes one knows that range of variation. Consequently, an iterative approach of sampling and re-sampling to draw an appropriate sample is usually recommended” (Palinkas et al., 2015, p. 536). In addition, the seven principles highlighted by Tashakkori and Teddlie (2003) have guided the choice of this sampling strategy. Specifically, it is argued that: (1) research questions and theoretical framework should guide the selection of the sample; (2) the chosen sample should provide information necessary to shed light on the investigated phenomenon; (3) the data collected from that sample should allow the formulation of credible conclusions from the data; (4) the sampling logic needs to be ethical; (5) the sampling logic needs to be feasible; (6) findings should be generalisable (analytically or statistically); (7) the sampling strategy should preferably be efficient and practical.

Consistent with Yin (2009), in order to identify a preliminary sample, inclusion criteria are needed. Examples of criteria include, but are not limited to, sample specifications, geographical boundaries and temporal restrictions (Easton, 2010; Yin, 2014). Once a preliminary sample is defined, an iterative approach is necessary in order to define subsequent sample characteristics and select the most “information-rich” cases. As a result, after having defined a preliminary sample, only those who met the criteria listed below were chosen. This funnel approach to sampling had the purpose to develop a progressive deepening of understanding of the causes of participants’ impulsivity.

The criteria used to select the final research sample were as follows:

#### I. Age

The review of the literature highlighted a negative correlation between age and impulsive purchase behaviour (Chaudhary, 2018; Mittal et al., 2016; Wood, 1998). Moreover, Mittal et al. (2016, p. 56) state that “young shoppers are driven more out of hedonic motivations than utilitarian”. As a consequence, consistent with the “information-rich” logic previously mentioned, young people have been selected as more representative to answer the investigated research questions. Specifically, individuals aged 18-22 at the time of data collection have been chosen for this investigation as being part of Generation Z, and consequently representing “information-rich” cases (see section 2.3.13.7 for a discussion of Generation Z’s characteristics).

#### II. Subjective sensitivity to reward

The review of the literature highlighted that impulsivity is a personal trait and different individuals have different sensitivity to rewards and consequent impulsive purchase behaviour (Gray, 1990; Ramanathan & Menon, 2006; Strack & Deutsch, 2004; Tifferet & Herstein, 2012; Torrubia et al., 2001). Therefore, considering that the aim of this study to identify and explore the

causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying, selecting impulsive buyers was beneficial as they represented the best "information-rich" cases.

### III. Gender

The review of the literature showed that although both men and women make impulsive buying decisions, their reasons to do so and related rationalisations may vary (Coley & Burgess, 2003; Gaşiorowska, 2011; Pentecost & Andrews, 2010; Tifferet & Herstein, 2012; Xiao & Nicholson, 2013). A discussion of this phenomenon is provided in section 2.3.11. As a result, in order to explore possible gender similarities or differences in impulsive buying, both genders were included equally in the research sample.

### IV. Occupation

The review of the literature showed that students are often included in studies investigating consumer behaviour (Coulter et al., 2001; Hansen, 2005; Pentecost & Andrews, 2010; Silvera & Lavack, 2008; Tetley et al., 2010; Zellman et al., 2010). As stated by Hansen (2005, p. 434) "when one is interested in detecting causal relationships a homogeneous sample [e.g. students] is the preferred option ... this increases the likelihood that the causal relations of interest will be observed when they exist". As a result, students have been selected. Specifically, university students have been chosen as they tend to manifest impulsive buying behaviours and are prone to value hedonic experiences (Mihic & Kursan, 2010; Mittal et al., 2016). Furthermore, choosing students from Edinburgh Napier University enabled them to familiarise with the researcher in order to develop openness and trust, which was fundamental to achieve data credibility (Lincoln & Guba, 1985).

## V. Culture

Cultural influences may play a role on hedonic brand cues sensitivity and food-related impulsive behaviour (Hultén & Vanyushyn, 2011). Hofstede's categorisation of indulgent versus restraint cultures states that "indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun" (Management Association, 2015, p. 545). Indulgent cultures tend to be more hedonistic, are more likely to 'enjoy the moment' and are prone to freely satisfy their needs. On the contrary, in restrained cultures, gratification of needs and hedonistic behaviours are restricted by social norms (Cakanlar & Nguyen, 2019; Hofstede, 2011). As a result, participants from a variety of cultures (British, Spanish, Italian, German, Romanian and French) were selected in order to create a more diverse sample. The commitment of Edinburgh Napier University to widening access internationally facilitated this task.

### **3.6.2 Response rate and sample size**

The participants of this study were located in Edinburgh as an in-depth study of their purchase behaviour was required through the three selected methods (observation, semi-structured interviews and online diaries/conversations). In order to gain access to the participants, students at Edinburgh Napier University were asked in the lecture theatres whether they were willing to participate in this investigation. Specifically, after receiving the approval from the Research Integrity Committee, lecturers at Edinburgh Napier University were contacted by email asking permission to use the beginning of their classes to recruit participants. After receiving approval from the lecturers, the following slide was used to recruit the research participants. Additional information on ethical considerations is provided in section 3.9.

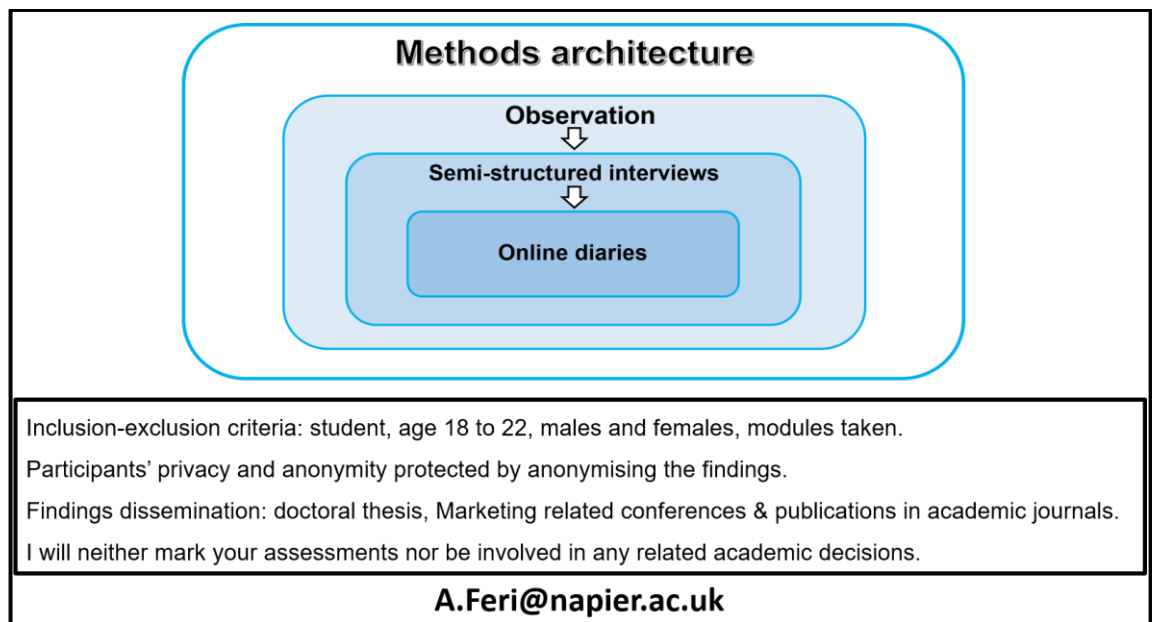


Figure 11: Participants recruitment slide

Although it is not possible to determine the exact number of students reached, modules with large cohorts of students were chosen to maximise the chances of a meaningful sample size. As a consequence, a total of nine lecture theatres with approximately 100 students each were visited by the researcher who explained the purpose of the research, the criteria of the sample selection, research integrity and findings dissemination. An introductory guideline was sent in order to outline the purpose of this investigation, explain the way in which the participants may help and the methods involved in the study (Catterall, 2000). In order to guarantee that the role of the researcher as lecturer did not affect the freedom and the quality of the answers provided by students, the students interviewed were not enrolled in his module. Specifically, the following guidelines were provided:

Thank you for taking part in this research. The aim of this study is to investigate the causal factors and mechanisms underlying consumers' impulsivity when purchasing food brands. In order to collect data useful to answer my research questions, three data collection methods will be used: observation of participants purchase habits, semi-structured interviews and online diaries.

Observation will be the first data collection method, will be face to face and the researcher will make some notes during the subsequent chat. Observation will take place in a supermarket of your choice and the subsequent chat in a nearby café or outside the supermarket. Semi-structured interviews will be the second data collection methods. They will be recorded and subsequently transcribed by me. Semi-structured interviews will be gathered in a meeting room facility at Edinburgh Napier University. The last data collection method consists in online diaries which will be conducted and downloaded from social media (e.g. Facebook Messenger) or WhatsApp.

I would like to emphasise that I will never be involved in any marking or academic decision related to you. Your privacy and anonymity will be guaranteed by removing your original name from the transcription, from the final thesis and from possible related publications. Finally, you will be able to withdraw at any stage of the data collection without giving any specific reasons and your decision to withdraw will have no effect on your marks, class treatment and lecturer-student relation.

If you have any questions, please feel free to ask them now. If you are happy to continue please read the consent form in the following page, sign it and we will begin the process.

Considering the unknown sample frame's range of variation, those who met the inclusion criteria were included in the preliminary sample but were instructed to email the researcher to have an initial meeting aimed at determining the suitability of the participants for the study. In order to select the correct sample size, the guidelines for obtaining data saturation in holistic multiple case studies have been followed (Yin, 2014). Specifically, criteria used for obtaining data saturation work as follows:

- i. If similar results are found across different cases (literal replication) then two to three replications are acceptable; otherwise, five, six or more may be needed.
- ii. If expected different results are found across the cases (theoretical replications) and rival explanations are considered and discarded then a small number of cases is enough; otherwise, a wider number is needed until rival explanations are addressed and discarded (Yin, 2014).

As a result, following the abovementioned guidelines, it was not possible to determine the exact sample size before data collection. However, the notion of not having a set formula to determine the size of the sample is consistent with qualitative research (Morse, 1998; Murray, 2010). As Malterud, Siersma and Guassora (2016, p. 1754) state: “the adequacy of the final sample size must be continuously evaluated during the research process”. Qualitative researchers’ sampling process is not fixed but it is flexible and aimed at obtaining data saturation either with a focus on homogeneity (necessitating a smaller sample) or heterogeneity (necessitating a larger sample) (Padgett, 1998).

“Saturation will occur when few or new data are being generated” (Murray, 2010, p. 16). Therefore, the sample size in this investigation was expanded until data saturation was obtained (Fusch & Ness, 2015; Langley, 2004; Trotter, 2012). As Malterud et al. (2016, p. 1759) observe: “qualitative interview studies may benefit from sampling strategies by shifting attention from numerical input of participants to the contribution of new knowledge from the analysis”. As discussed in section 3.4, data saturation is also consistent with multiple case studies design as what matters is not statistical generalisation but analytical generalisation. As no new data was generated after 13 different cases, the number of cases used in this research was 15 participants as similar results were found across different cases and data saturation was achieved. The additional two participants were included in the sample to ensure no new data was originated. A complete timeline providing an overview of the data collection timeframe is shown in the table below.



<b>Data collection timeframe</b>	
<b>Observation</b>	August – October 2017
<b>Semi-structured interviews</b>	October – December 2017
<b>Online diaries</b>	January – February 2018

Table 4: Data collection timeframe

The table below provides information related to participants' characteristics, including their labelling, generation, gender, occupation and supermarket chosen for observation of purchase behaviour.

<b>Participant</b>	<b>Generation</b>	<b>Gender</b>	<b>Occupation</b>	<b>Supermarket</b>
A	Z	Female	Student	Tesco
B	Z	Male	Student	Scotmid
C	Z	Male	Student	Tesco
D	Z	Male	Student	Sainsbury's
E	Z	Male	Student	Tesco
F	Z	Male	Student	Tesco
G	Z	Female	Student	Tesco
H	Z	Female	Student	Sainsbury's

I	Z	Female	Student	Morrisons
L	Z	Female	Student	Sainsbury's
M	Z	Female	Student	Scotmid
N	Z	Female	Student	Tesco
O	Z	Female	Student	Scotmid
P	Z	Male	Student	Lidl
Q	Z	Male	Student	Morrisons

Table 5: Participants' characteristics

### 3.7 Data analysis strategy

The data gathered from the triangulated multi-method qualitative case studies have been recorded and transcribed in order to be analysed. Consistent with the critical realist mode of inquiry, whose ultimate goal is to retroductively identify hidden factors and mechanisms through the examination of their observable effects, this thesis complies with Bhaskar's "RRRE model of analysis": resolution, redescription, retrodiction, elimination (Bhaskar, 1978, p. 125). This strategic approach to data analysis, in Bhaskar's view, enables the researcher to understand the studied phenomenon by retroductively examining its stratified and emergent nature. In line with the critical realists' ontological position, data collected in the empirical realm and analysed through the RRRE model can lead to the identification of causal factors and mechanisms situated in the realm of the real (Collier, 1994, p. 122).

The first step of data analysis, resolution, consists in identifying the key factors, mechanisms, entities or influences that play a role in the studied phenomenon (Bhaskar, 1978). Since the aim of this research is to identify and explore the causal factors and mechanisms underlying the relationship between hedonic

visual brand cues exposure and Generation Z's impulsive food buying (i.e. the studied phenomenon), participants' responses in the realm of the empirical have been analysed through thematic analysis. Themes are conceptualised as patterns of meanings, perceptions, or experiences of participants. Thematic analysis is consistent with qualitative research (Braun & Clarke, 2006; Levac et al., 2010; Malterud et al., 2016). Thematic analysis was effectuated complying to the steps provided by (Braun & Clarke, 2013) (i.e. familiarising with data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; producing the report).

Specifically, after transcribing the data originated from the adopted multimethod qualitative approach, data analysis began with familiarisation with the transcripts by reading and re-reading them. Following Braun and Clarke's (2013) guidelines, the following phase consisted in initial coding by classifying the keywords (or codes). This process led to the following step which consisted in searching for themes by identifying frequently mentioned patterns. This was an iterative process which consisted in creating, combining or eliminating existing themes. Furthermore, once the process progressed, some keywords were revised in order to provide greater strength to the codes. This process progressed until stability of codes was reached and data saturation was achieved (a discussion of the finalised codes is provided in chapter 4). Moreover, as shown in the figure below, codes that displayed similar features were congregated in sub-themes which had larger theoretical strength. Finally, sub-themes were clustered into themes which have then guided the discussion and interpretation of the findings of this investigation.

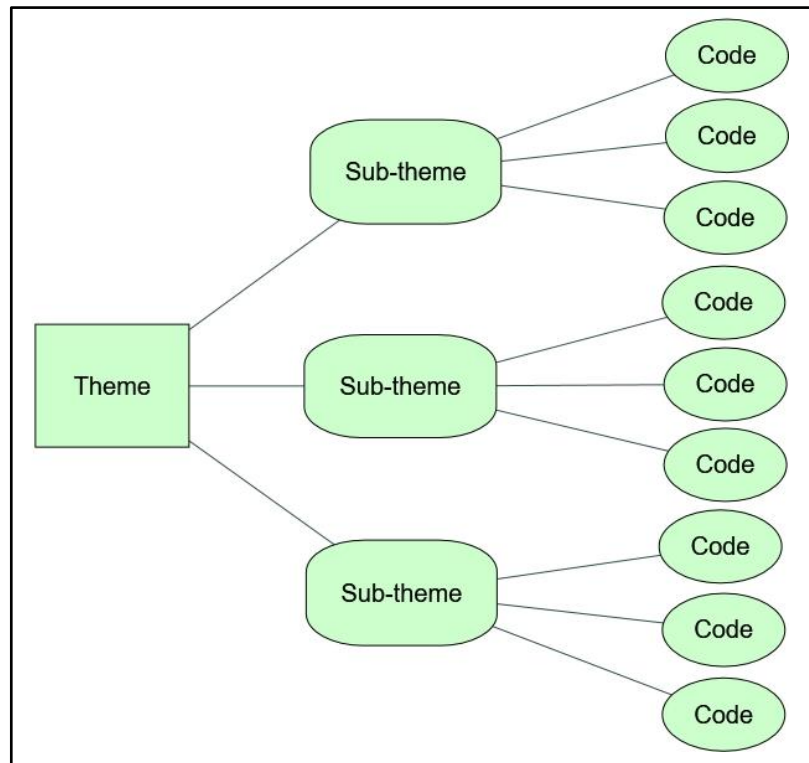


Figure 12: Thematic analysis approach

The data obtained from the triangulated multimethod qualitative approach adopted in this research were transcribed by the researcher and uploaded to NVivo for analysis. Adopting NVivo software allowed the researcher to manage multiple formats of data systematically, monitor the coding and analysis process, store the data and provide helpful visualisation of themes. Specifically, each method adopted generated different types of data: observation (text); semi structured interviews with photo elicitation and projective techniques (text and visual images); online diaries (text and visual images). Adopting the software has been beneficial in terms of having a centralised platform which allowed the researcher to achieve triangulation during the analysis process. Specifically, the software allowed the visualisation of the data in one window and the code system in another window. A 'drag and drop' coding approach consisting in selecting the related content, dragging it and dropping it to an existing (or new) node was adopted. This led to analysing the collected data through NVivo by generating initial codes obtained by summarising data (condensation), categorising them

(grouping) and structuring them (ordering) (Winterton, 2008). Furthermore, the coded segments of texts could be visualised within the NVivo nodes which contributed to refine the created codes and subthemes along the process of analysis. Finally, after coding was completed, text documents related to the identified nodes have been downloaded from NVivo and used to structure the findings chapter.

In the second step, redescription, the initial codes have been reanalysed in light of the theoretical underpinning delineated in the literature. This theoretical redescription of causal factors and mechanisms had the purpose of providing a deeper understanding of the studied phenomenon. Moreover, analysing the codes in light of the literature had the purpose of providing a sound theoretical rationale to interpret the obtained data (Collier, 1994). Furthermore, the process of comparing and contrasting the generated codes with the literature enabled the generation of new codes. Finally, as suggested by Bhaskar (1978), this process enabled the researcher to enhance the explanatory power of this investigation by deepening the level of analysis from the realm of the empirical to the realm of the actual.

In the third phase, retroduction, the underlying causal factors and mechanisms at play in the realm of the real have been identified by plunging into the data, determining cause-effect relationships and discounting alternative explanations (Belfrage & Hauf, 2017). This step of data analysis aimed to explore the ultimate causes of the studied phenomenon as well as enabling the examination of the relationships among the causal factors and mechanisms involved (Collier, 1994). The retroductive process had the purpose to identify the ultimate key factors and generative mechanisms triggering Generation Z's impulsive buying after hedonic visual brand cues exposure. Nevertheless, considering that the studied phenomenon operates in an open system, the number of possible causes could potentially be too vast to be explored (Danermark et al., 2019; Ryan et al., 2012). As a result, in the fourth and final phase of analysis, elimination, credible explanations have been selected and alternative causes (in the form of codes

and themes) have been eliminated if not meaningful in answering the research questions. Finally, the findings obtained from the analysed data led to the formation of a new conceptual model which, ultimately, informed the aim of this investigation.

### **3.8 Research quality**

In order to assess the chosen research design, each method was piloted prior to the final data collection. Specifically, observation of participants' shopping behaviour was piloted with four participants in August 2017, four semi-structured interviews in September 2017 and four online conversations in December 2017. The original methods were designed in a flexible manner in order to be refined after the pilot stage. The pilot stage enabled the researcher to: define the duration of each method employed; verify participants' understanding of the questions and tasks required; discuss potential ethical issues concerning the participants; validate the visual presentations of the semi-structured interviews and finally, obtain test data to check the suggested analysis strategy (Catterall, 2000).

In order to assess the research quality of case studies, the following tactics suggested by Yin (2014) have been followed: use multiple sources of evidence; establish chain of evidence; do explanation building; address rival explanations and use replication logic in multiple-case studies. In order to keep a rigorous approach to research, the process was marked also against another indicator of research quality: the eight key markers presented by Tracy (2010) (i.e. worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethics and meaningful coherence). In addition, the criteria presented by Lincoln and Guba (1985) of credibility (instead of internal validity), transferability (instead of external validity or generalisability), dependability (instead of reliability) and confirmability (instead of objectivity), were used to assess the qualitative findings trustworthiness. Specifically, the issues assessed in order to enhance the findings' trustworthiness were: the social and cultural impact of the research; the relevance and theoretical coherence of findings; the potential transferability of

findings; the transparency and appropriateness of analysis and finally the desired contribution to knowledge.

The qualitative findings were analysed through the identification of emerging and recurrent themes (Gioia et al., 2013). This approach has been found to be useful in order to protect the findings trustworthiness (Braun & Clarke, 2006). This interpretation has the capability to guarantee the consistency and the quality of the findings without being affected by predetermined themes already existing in the literature (Phillimore & Goodson, 2004). Nevertheless, the questions asked were informed by established literature in line with Kervin's (2000) approach to research. In order to interpret the qualitative data and retroductively analyse the findings, the points presented by Phillimore and Goodson (2004) were also respected. Specifically, the author attempted not to use the questions asked as potential emerging themes; the themes were kept coherent and consistent; analytical claims were done in light of the data collected and the theory developed was based on the analytical claims deriving from the collected data.

Finally, it is worth noting that the findings obtained could not be generalised to the wider population in a statistical manner. Nevertheless, as discussed in section 3.4.2, consistent with critical realists' mode of inquiry (Danermark et al., 2002; Edwards, O'Mahoney, & Vincent, 2014) and case study research (Yin, 2014), statistical generalisation is replaced by analytical generalisations in the form of theoretical generalisations. Analytical generalisations are concerned with theory building rather than with generalising the findings to the wider population in a statistical manner (Rietjens, 2015). As a result, this study was concerned with building theory and analytical generalisations.

### **3.9 Ethical considerations**

In order to conduct research in an ethical manner, the principles of non-maleficence and beneficence portrayed by the "Code of Practice on Research and Knowledge Transfer Ethics and Governance" of Edinburgh Napier University were observed (Grainne, 2013). According to Saunders et al. (2016), ethical

dilemmas in business research embrace the nature of the studied phenomenon, the research methods, the manner in which the researcher gain access to the participants, data collections techniques and finally data analysis strategies.

In order to minimise potential unethical codes of conduct, participants' privacy and anonymity were guaranteed. In addition, the right to withdraw at any point of the research process was provided to them. Furthermore, an introductory session was used to explain to the participants the different research procedures adopted and to assure them that the data collected would have been confidential. Moreover, Edinburgh Napier University Research Ethics committee checked the suggested research design and provided the related consent. Finally, possible unethical behaviour was minimised by avoiding situations that caused participants physiological and psychological stress and a transparent code of conduct as a researcher was maintained. Participants' signatures of the informed consent forms were obtained.

### **3.10 Summary**

The aim of this chapter was to provide a detailed account of the methodology adopted to address the aim and answer the empirical research questions of this investigation. Specifically, first critical realism and related methodological implications of the chosen philosophical position were discussed. Then, the chosen research design and data collection methods were analysed. Next, sampling design was discussed and justified. Finally, the suggested data analysis strategy, research quality and ethical considerations were considered. The next chapter provides a discussion and analysis of the research findings obtained in this research.



## **4 Research findings**

This chapter aims to offer an account of the research findings obtained through the triangulated multi-method qualitative approach adopted in this research: observation of purchase behaviour; semi-structured interviews aided by photo elicitation and projective techniques; and participants' driven diaries via social media. Consistent with the retroductive mode of enquiry pertaining to critical realism, this approach to data analysis examines the stratified and emergent nature of causal factors and mechanisms affecting participants' impulsive food shopping. Since the employed methods have been designed to deepen progressively the holistic understanding of the causal factors and mechanisms at play, the evidence originated from the employed research methods has been combined to achieve triangulation of data.

### **4.1 External direct triggers**

The findings of this study have shown that several external direct triggers can enhance participants' impulsive food buying. External factors are those stimuli that are found in the shopping environment (e.g. "related to situational – store and product – characteristics") (Santini et al., 2019). Direct triggers are those factors that directly trigger participants' impulsivity (i.e. are not mediated by or do not interact with other stimuli) (Bahrainizad & Rajabi, 2018; Chan et al., 2017; Fenton-O'Creevy, Dibb, & Furnham, 2018; Lucas & Koff, 2017; Vieira, Santini, & Araujo, 2018; Vonkeman, Verhagen, & van Dolen, 2017; Zheng, Men, Yang, & Gong, 2019). As shown in the figure below, hedonic visual brand cues related to attractive packaging; appealing presentation; colours fit; transparency; simplicity; trust; novelty; exclusivity; childlike design; authenticity and health seem to trigger participants' impulsive food buying. As a result, each external direct trigger identified is discussed in the following sections, specifying whether the related evidence is retrieved from observations, interviews and online conversations.

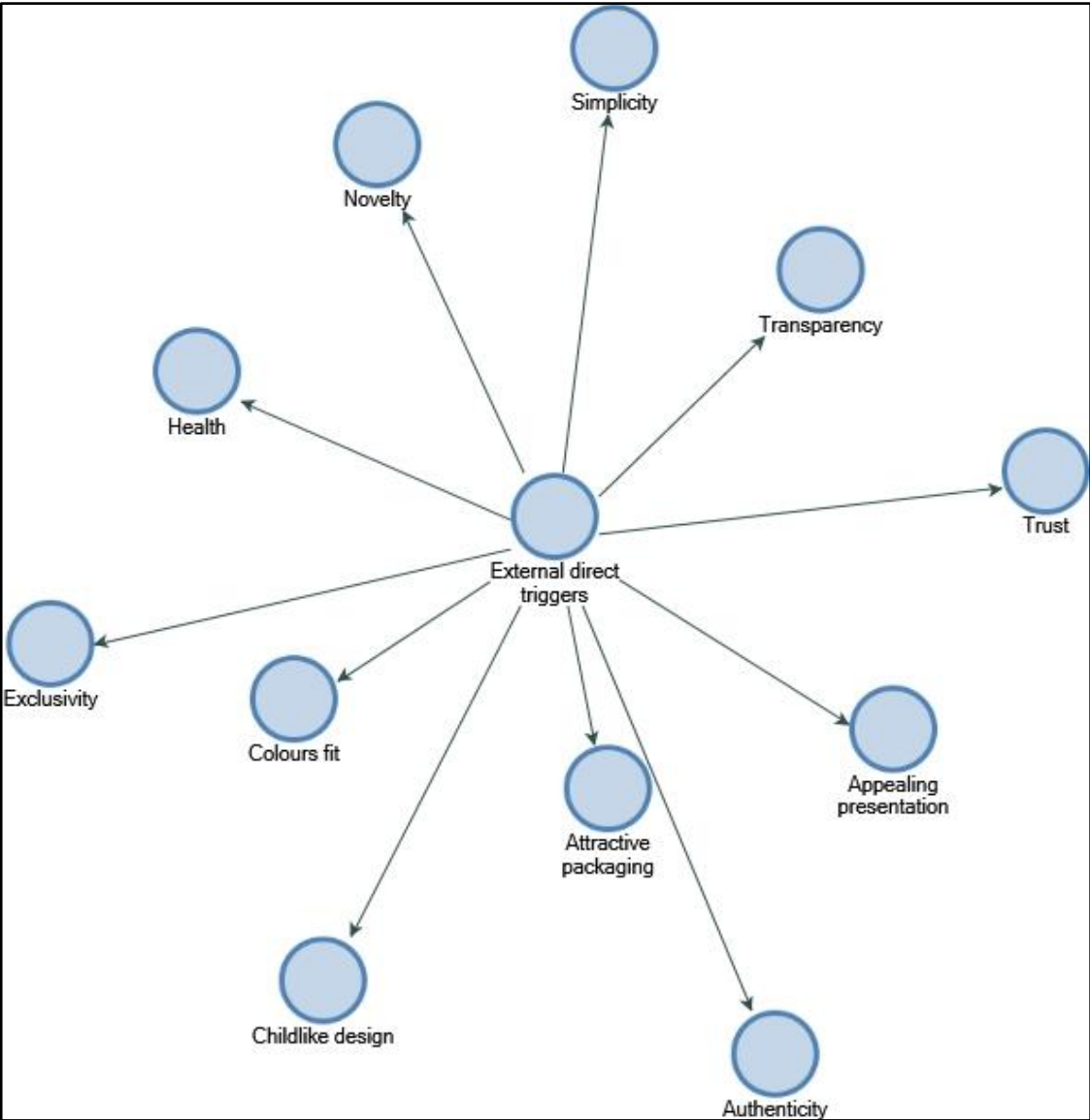


Figure 13: External direct triggers (NVivo nodes)

#### 4.1.1 Attractive packaging

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Attractive packaging	Attractive packaging appearance Packaging catching participants' eyes Packaging catching participants' attention Good quality inferred from attractive packaging

Table 6: Attractive packaging

A common view amongst interviewees was that the packaging itself, rather than the product, was an important factor enhancing their impulsive decisions. This aspect is most evident in one of the participants interviewed, participant L, who stated that she bought certain items on impulse (shown in the figure below) because of the packaging rather than the content itself. When asked to expand on the causes of her impulsive decision, pointing at her items bought impulsively, participant L stated: "I like the packages of these food but not the content".



Figure 14: Participant L – Packaging

The attractive appearance of food bought on impulse, whether packaged or not, seems to have an impact on participants' impulsive decisions. Images that “catch your eyes”, as participant B stated, or images that “catch your attention with their fascinating package”, as participant E confirmed, appear to trigger participants' impulsivity. Commenting on this issue, one of the interviewees, participant G, when constructing a vignette based on one of the images selected as triggering her impulsivity (shown below), stated: “Genius! I will not dirty my hands anymore”. The findings of this study highlight that the associations elicited by hedonic visual brand cues play a role within participants' impulsive food-shopping.



Figure 15: Participant G – Packaging

Furthermore, a common view amongst interviewees was that attractive visual brand cues on the packaging eliciting associations of good quality could enhance food shopping impulsivity. For example, participant E, referring to one of his products bought impulsively, stated: “See this "made in France"? That makes me think about something good”. Similarly, participant A, referring to the images below, stated: “I bought this specific one because it was better quality that what I normally buy. Everyday things but bought on impulse because I wanted to invest in something with a better quality”. Taken together, the findings of this study suggest that there is an association between attractive visual brand cues in the food packaging and participants’ perception of quality, which, in turn, appears capable of influencing participants’ impulsivity. This view is further exemplified in participant B’s comment who stated: “I think it [quality] depends on your background, childhood memories, family where you come from, how your mum fed you when you were a kid. For me personally, rustic packaging can give an idea of quality”.



Figure 16: Participant A – Packaging

#### 4.1.2 Appealing presentation

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Appealing presentation	Appealing presentation of products on the shelves Calm and relaxed shopping environment Clean designs Symmetry of products and coordination of labels Well organised products

Table 7: Appealing presentation

During observation (participant B; C; G; H; I; L; N; P; Q) there were suggestions that the environment in which the food was bought is a meaningful factor affecting participants' impulsivity. Specifically, it was mentioned that the environment has to be calm and relaxed in order to put them at ease while buying. Clean designs and open spaces appear to be important catalysers of participants' impulsive food shopping. Talking about this issue while shopping, for instance, participant I stated: "The design of the store has to be clean and organised to be appealing". In addition, it was mentioned that the shopping environment needs to be providing an idea of genuineness especially for fresh food. Furthermore, the store architecture appears to be contributing to transmitting the idea of transparency and authenticity of food sold.

Similarly, during observation it was suggested that appealing presentation of products in the shelves appear to play a role within participants' impulsive decisions. As participant B stated: "We also eat with our eyes". Appealing

presentation of products in the supermarket shelves seem to enhance participants' food shopping impulsivity. For example, some of the participants do not like when the products are too crowded in the shelves (participant B; H; I; N). In addition, whenever food is presented in a natural way, or as participant C suggested "without too much packaging", participants seem to be more attracted by it. The findings of this study support the idea of participants' impulsivity enhanced by cues in the retail environment.

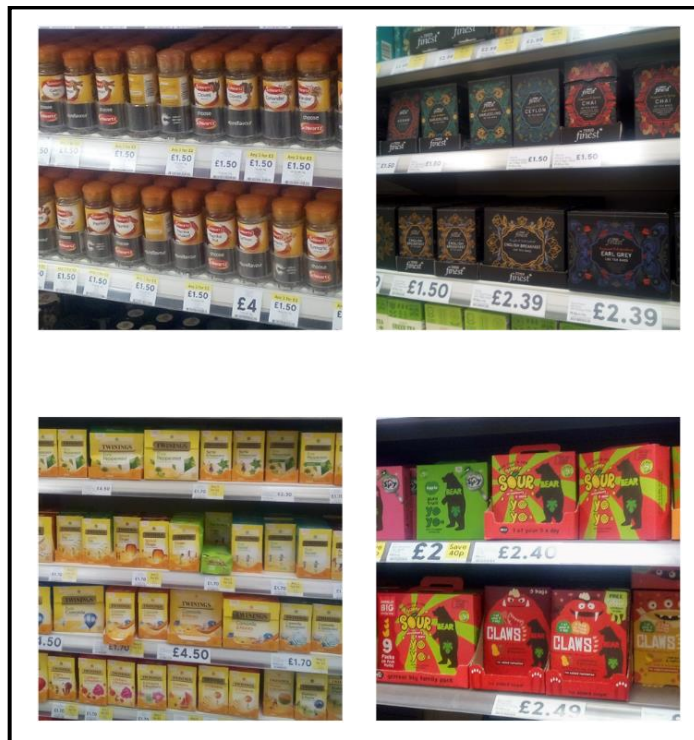


Figure 17: Participant G – Appealing presentation

During interviews, some interviewees argued that the way in which products were presented in the supermarket shelves may impact their impulsive purchases. Two reasons emerged from this. First some participants expressed a 'need for organisation' in the way products were displayed in the shelves. For example, as shown in the comments below, symmetry of products and coordination of labels appeared to attract participants' attention, which, in turn, was a causal factor potentially leading them to buy impulsively. Second, a 'need for authenticity' emerged as capable of being inferred by the way in which products were shown

to consumers. For example, one interviewee, participant G, referring to the images of the products bought impulsively shown above, commented:

This one [Tesco tea; Super Sour Bear; Twinings tea] **I really like the way in which it was put on the shelves because, gives you satisfaction, they were all the same colours, all aligned, all the labels on the front, it just looked tidy.** This one as well [spices], I don't really know why, but when I walked in the supermarket and I saw it, I thought wow... **That's well displayed!** And that's really stupid because those are spices, **I just like the way they look.**

Other participants' responses during interviews related to this theme included:

<p><b>Participant F</b></p> <p>“So... I do remember that this one here, this coffee [Gold Arabica], was basically... <b>It's a gold colour no?</b> And there was like full shelves full of coffee and there were all very dark like blue, like brown, and then there was this one on the bottom so, among the shelves <b>this one really caught my eyes because it was impossible not to see that.</b> I don't know if that is a strategy or something but it was really impossible not to say... Wow! And this one [Green tea] ... I don't know it really impressed me... <b>but that was the way in which it was located.</b>”</p>		
<p><b>Participant E</b></p> <p>“When I see them all together, they make me think about something happier than the reality”</p>		
<p><b>Participant I</b></p> <p>“I like chocolate biscuits and the packaging is attractive. It's red and yellow and <b>you can see it among the other products when it's all organised in lines and your attention is caught by these cookies</b>”</p>		

Figure 18: Participant F, E and I – Appealing presentation



### 4.1.3 Colours fit

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Colours fit	Colours of labels Bright colours Pastel colours Fit between the products bought impulsively and the colours used

Table 8: Colours fit

During observation (participant C; G; O; A; F; H; N; P) there was a sense amongst participants that the colours of the labels are important factors within their impulsive decisions. Specifically, there seems to be convergent evidence that suggests that the colours used have to fit the nature of the products bought. The images taken during the observation shown below confirm participants' perception of the contrast between these two categories (pastel colours at the top for healthy food versus brighter colours at the bottom for unhealthy food).



Figure 19: Observation – Colours fit

A common view also amongst interviewees was that the colours used to package food is important. Two discrete reasons emerged from this. First, it appears that colours are capable of attracting participants' attention, which seems to be a prerequisite for impulsive decisions. Second, it seems that there has to be a fit between the products bought and the colours used. This discrepancy is illustrated in the following quote from participant O:

I'm very much **driven by colour**, in everything, not just foods. The simpler products it is for me, the least appealing it would be. It has to be well packaged, yes, pretty much. **But then there is another thing, it depends what I'm going for: if I'm going for fatty and comfort food, that's where it needs to be colourful; if I am going for organic or really healthy, that's what it needs to be more simple.** Like this for instance [organic cereals]. They are all completely so natural, just like me. If I buy organic or healthy food, that completely changes from one to the other, to be honest. **So there has to be a fit between the product and the way it is packaged.** I never actually thought about that until now (laugh).



Figure 20: Participant B – Colours fit

The participants on the whole demonstrated that bright colours are capable of attracting participants' attention. As participant B argued during the interview, referring to the image shown above: "In terms of packaging and colours, they definitely catch your eyes. I mean red colour catches more your eyes than any other colour. I think that gold can be the same". Other responses regarding the same issue included: "I think this packaging looks brilliant; I think I would buy it just because of the box. I like the yellow and black colours together, the contrast" (participant C); "This one is really good [group of 3 colourful images] and "The colour red always attracts my attention" (participant G). Furthermore, participant H, talking about the importance of shiny colours suggested: "They made a special edition [chocolate] which was completely covered in gold paper and it looked so satisfying, the packaging was so beautiful ... I would just buy it because of the colourful packaging and be really happy about it". This theme emerged also from one of the online conversations with participant A who, as stated below, said:



Figure 21: Participant A – Colours fit

[Interviewee A] Hey Ale, I bought this on impulse today [Dairy Milk]

[Interviewer] Hey thanks for sharing! What led you to buy it? Anything specific?

[Interviewee A] **Just the colourful packaging maybe**, and I know the chocolate is nice quality too 😊

These findings of this study indicate that if the items bought are not healthy, the packaging can be more “on the face” as stated by participant G. Healthy foods, on the other hand, need to have pastel coloured packaging in order to be appealing. Furthermore, plain colours, monochromatic packaging and colours that transmit an idea of naturalness appear to appeal participants’ taste. During interviews, participant G, when asked to expand on her choice of a group of self-selected images, said:



This one is the packaging group because the reason why people would buy them, and I would buy it, it's because of the packaging. This one's really funny and this one's reminds you of home-made stuff. **All of these use pastel colours and look healthy and I like them for this.**

Figure 22: Participant G – Colours fit

The extract below from an online conversation with participant M further illustrates this point.

[Interviewee M] There are both light colours and heavy colours in my images. I feel that **both of them want to attract you but in different ways. Healthy foods in my idea should use lighter colours.**

[Interviewer] And why do you think people consider this important?

[Interviewee M] I think there is a fit between light colours and healthy food... Maybe just because we are getting used to see them. We kind of agree on the idea that more basic design or packaging or light colours are related to healthy foods. **It looks like it has less bad impacts on your body, I don't**

**know, it feels like they don't damage you.** It feeds you in everything but doesn't damage you. I think that now more people are aware or think about foods. This is the duality of purchase in which people struggle.

#### 4.1.4 Transparency

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Transparency	Transparent packaging Ability to see inside the packaging Ability to evaluate the content Willingness to reduce perceived risk

Table 9: Transparency

During observation of participants' behaviour (A; B; C; D; F; P; Q) it emerged that the transparency of the packaging is an important factor in triggering their impulsive decisions. It was suggested that as participants were interested in seeing exactly what they buy, transparent packaging is essential to show the content. A common view amongst participants was that being able to see inside the packaging transmits an idea of authenticity and genuine foods. The images taken during the observation shown below confirm that transparent packaging is an important visual factor for the participants of this research.



Figure 23: Observation – Transparency

The majority of interviewees confirmed that visual brand cues consistent with transparent packaging trigger their impulsive purchases. It is interesting to note that the notion of transparent packaging appears important because it allows participants to evaluate the content, which in turn decreases perceived risk and enhances trust. For example, participant A commented: “Transparency of the packaging is really important. When I see these [truffles], for example, I feel tempted, guilty”. The same view was reflected by participant D who stated: “If I have to decide I think I would opt for a transparent package because I like seeing the content and it makes me feel more comfortable”. Participant E, to provide another example, when asked to pick one of the images that triggered his impulsivity the most, answered that he chose Gü “because it’s glass and you can see inside”.



Figure 24: Participant O – Transparency

On the same line of thinking, referring to the image shown above, participant O stated:

In this one there is just the product, as it is, and that's it! In the other ones there is messages, images, so they are different kinds of marketing tools that are bought for different reasons. I think that for people who try to go for health food, **the package has to be transparent** and as simple as possible.

#### 4.1.5 Simplicity

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Simplicity	Simple design  Minimal design  Simple shape of packaging  Simple font used

Table 10: Simplicity

During observation of participants' purchase behaviour (participant A; B; C; H; M; N; O; P) there was a sense that simple and minimal design of packaging may be important factors capable of triggering participants' impulsive behaviour. For instance, whenever walking through the aisles of the supermarket, participants' attention appears to be attracted by food packaging that is not extremely elaborate and does not appear excessively processed. Among the factors mentioned by the participants during observation, it is worth noting: simplicity (the less elaborated product is, the better); shape of packaging (the more defined, clean and simple, the better) and the font used on the packaging (the simpler, the better). The images taken during the observation shown below confirm that simple and minimal design of packaging, as categorised by the participants of this research, is an important visual factor affecting their impulsive buying (participant A; B; C; H; M; O; P).





Figure 25: Observation – Simplicity

This theme came up also during interviews where the majority of the participants said that simple design of packaging is a significant factor influencing their impulsive decisions. To provide some examples, amongst participants' perception of simple design, it is worth noting that simple and minimal design: "is clear, simple and eye-catching" (participant L); "seems healthier and tastier" (participant I); "symbolises good quality, natural ingredients" (participant A); "looks more natural and healthy (participant E); "look simple and easy to understand" (participant G).



Figure 26: Participant A – Simple design

The significance of simple design is further exemplified in the quote of participant A who, while describing two of the images selected for the interview as triggering her impulsivity (displayed above), stated: "Well it's glass, it's quite simple, simple design, just the brand. They give you the impression that it is good quality and

good ingredients”. Another interviewee, participant H, referring coincidentally to the same brand shown in the figure above, Whole Earth, commented: “I like these because they are really simple ... just from the colour it looks like cream without a lot of added things. You would think this is home-made, and this makes me happy to buy”. This view was echoed also by participant F who, personifying the image shown below, argued: “authentic person, not a person full of himself ...not arrogant! I think he would be humble ... also because the label is very simple you know? It's nothing like chaotic ... but you know sometimes the simple wins (laugh)”.



Figure 27: Participant F – Simple design

In all the examples above, the perceived simplicity of the hedonic visual brand cues adopted appears linked to positive participants’ responses which, in turn, seems to matter when food shopping impulsively. This is exemplified also in participant C’s quote who stated: “I think that if you make too much decorations on the brand maybe you want to cover something about the product”. As shown below, this theme emerged also in the online conversations with participants B and C who stated:

[Interviewee B] I liked this one because it is simple and clear [Innocent]

[Interviewer] Do you think that the simple style used has an impact on your perception of the brand?

[Interviewee B] I think it does, that makes you think that it is something more sustainable... Innocent for example makes you think that they are a good company.



Figure 28: Participant C – Simple design

#### 4.1.6 Trust

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Trust	Trustworthy packaging Feelings of trust Elicited feelings of reliability

Table 11: Trust

During observation, the majority of participants appeared attracted by visual brand cues that elicited feelings of trust. The participants on the whole demonstrated that when the packaging was trustworthy their likelihood of proceeding with impulsive food buying was enhanced. It was suggested that participants tend to buy on impulse brands that appear reliable and truthful (participant B; F; H; L; O; P). During observation there were some suggestions that participants' vulnerability to the brands they trusted may enhance their impulsive food buying (participant E; F; H; L; M). The images taken during the observation shown below provide an example of the visual brand cues the participants of this research associated to feelings of trust.



Figure 29: Observation – Trust

Also during interviews, some participants argued that visual images that transmitted an idea of trust are important factors that lead them to buy food impulsively. As participant L put it: “The packaging of this one [Naked juice] is really good... the colours, the fruits... looks like it is a proper fruit juice, nice and good. This image looks trustworthy”. This view was echoed by another informant

(participant H) who stated: “Any image that is colourful, simple, and reminds me of home... any image I consider trustable is good for me”. These findings confirm that visual brand cues that elicit trust are associated with positive consumers’ responses but further stress the role of trust within participants’ impulsive purchases. Personifying a brand purchased impulsively [Green tea], participant N commented: “Cheerful, relaxed, **trustworthy**, healthy, maybe from 25 to 60, yoga fan and would meditate... maybe yoga instructor. They would be quite relaxed, **someone you can rely upon**, and I feel they would feel the energy of the other people”.



Figure 30: Participant H – Trust

The importance of trustworthy visual brand cues can be noted also in the views of participant H, who, when asked to create a fictional story based on one of their selected products bought impulsively, displayed above, stated:

Once upon a time there was a little orange and it was really shy and small and it wasn't like the other big oranges. He was always trying to get along

with the others and being really good, but somehow it didn't get all of the attention or any attention at all. The children wanted to get the nice drinks but there were always the bad neighbours from the other plant, the Coca Cola plant, and they would always win the competition, they would always be chosen. **He was never chosen, even though it was the good one, the one everyone trusted.** One day, it was his lucky day, he was chosen among the other main oranges in the Coca Cola plant, and **in the end he won** because of his inner sense and it was the best drink of all.

#### 4.1.7 Novelty

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Novelty	Novelty seeking Curiosity Willingness to experience new food

Table 12: Novelty

A recurrent theme in the observation was a sense amongst participants (participant A, B, D, E, H, M, O) that trying new food brands and experiment new recipes with the food bought may lead them to buy those items on impulse. Similarly, visual images that reminded them of new food brands to try, and appealed to their sense of curiosity, were seen in a positive light. When asked the reasons why participants felt attracted by this kind of visual cues, a variety of perspectives were expressed.

For example, participant A, referring to their impulsive purchases, stated that food shopping can be an exciting experience because “you can experiment and try new foods/flavours”. This view was also confirmed by participant B, D, H, M and O who all suggested that food shopping satisfies their sense of curiosity. Furthermore, participant E argued: “Yeah, sometimes you see very interesting stuff on the shelf!” and he then continued by stating he likes to be exposed to a variety of new images “because you can get ideas about new food you can make”. On the same line of argument, participant F stated that he likes the feeling of novelty when food shopping “because you can start to think about what you’ll make with the ingredients you’re buying”.

Furthermore, participant G suggested that food shopping satisfies her sense of curiosity because “can try new exotic food, for example Indian, Mexican, French, Japanese food”. Another interviewee, participant P, when asked to clarify what he meant by ‘new’ stated: “something that is not very common, an exception. That could be the colour, shape... something that it is not very easy to find”. Moreover, being new on the market, or even redesigned, appears to attract participants’ attention, consequently increasing their likelihood to purchase those items impulsively. Talking about this issue, participant H said:

I really like to buy products that for me don't look like "Oh yeah, **that's the usual package as you are used to it**" ... Like this for example, it looks really stylish because it has this **different pattern**.

Additional evidence to support this theme can be retrieved from the quotes of participant L who stated: “If I am in a good mood I love to experiment a lot of new recipes” and “I love to think about new recipes, new experiments, I am like a child when I do food shopping” and “For me it is an exciting experience because I like to taste different food, and I like to walk in the supermarket and feel the buzz”. Other responses to this question included: “[consumers] love foods or they are curious to discover new products/brands” (participant M); “you can find out new brands and products as you are already thinking about your next meal... I love food!” (participant N); “you can buy things you haven’t tried before” (participant

O). Taken together the findings of this investigation show that there is an association between visual brand cues that evoke feelings of novelty and positive participants' responses which appear to enhance impulsive food buying.

#### 4.1.8 Exclusivity

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Exclusivity	Exclusivity Elegance Sophistication

Table 13: Exclusivity

During observation, a number of issues were identified regarding visual brand cues that symbolise exclusivity, elegance and sophistication. Visual images that fall in this category appear to attract the attention of the participants which, in turn, seems capable of triggering their impulsive behaviour (participant C; D; F; G; I; L; M; O; Q). A common view amongst the observed participants was that when buying something exclusive, they were able to buy an exclusive lifestyle. Furthermore, images that appear to have a classy style seem to attract the attention of participants. Some of the pictures of food brands pointed by participants during observation as being part of this category are shown in the figure below.





Figure 31: Observation – Exclusivity

Also during interviews, in all cases, the informants reported that visual images that transferred an idea of exclusivity, elegance and sophistication were leading them to purchase impulsively. Among the reasons why these images are significant in participants' impulsive decisions, it is possible to note: "they make you feel exclusive" (participant B); "it looks fancy and expensive" (participant H); "it is luxury" (participant N) and "it gives the idea of exclusivity, elegance and social status" (participant O). Furthermore, it appears that visual cues in this domain are linked to the perception of scarcity which in turn elicits positive responses. As participant A stated: "these products are more specific, you don't find them everywhere, so when you see them you are like "oh well let's get it". The scarcity of the product makes it more appealing. Something uncommon and specific, originality is key!".

A similar pattern can be observed in participants B, D and I who, when personifying the brands represented in the images chosen as triggering their impulsivity, stated:

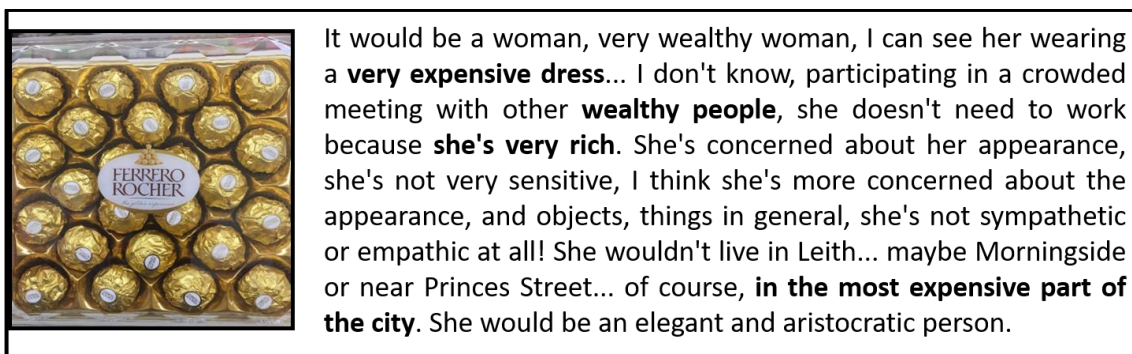


Figure 32: Participant D – Exclusivity

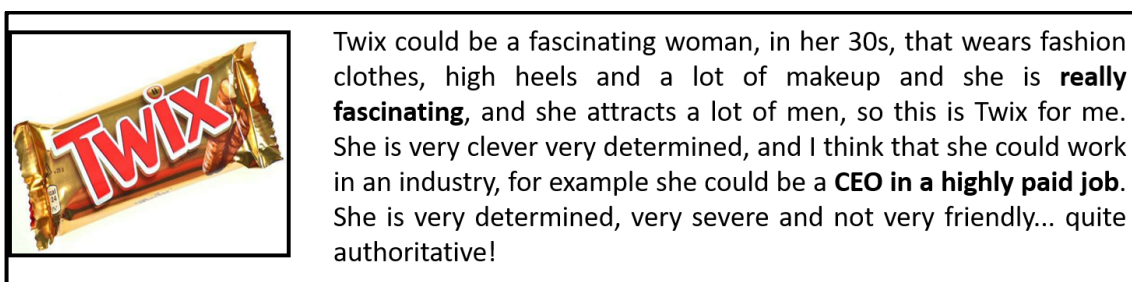


Figure 33: Participant I – Exclusivity

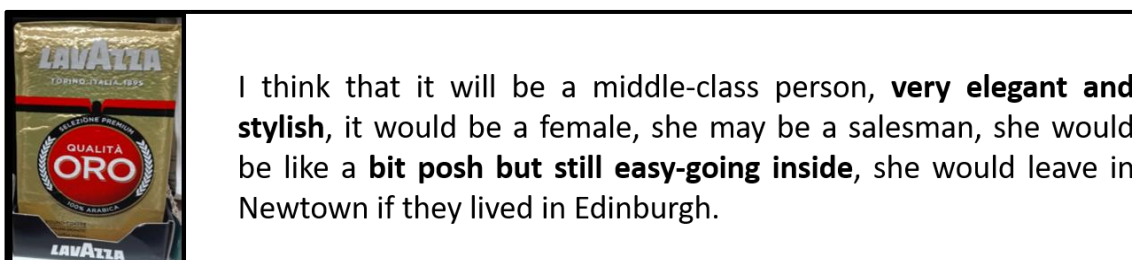


Figure 34: Participant B – Exclusivity

As shown below, this theme emerged also in the online conversations with participant F who stated:

[Interviewee F] I like all of them but this one [Ferrero Rocher] is very **elegant, sophisticated so it describes myself...maybe... as well!**

[Interviewer] Why do you think that being elegant and sophisticated is important?

[Interviewee F] Well, my personal opinion because I don't like the mess so for me, **the more clear and simple you are, the better.**

[Interviewer] And why do you think people consider this important?

[Interviewee F] Well, it depends on people. **People like me would appreciate more the elegance instead of messiness.** Maybe it is because the gold colour (laugh). It's just that way I like it. I don't do anything for the other people, so I do it mostly for myself. Maybe that's the way I am so **it's automatic.** I'm not even thinking about it but now that I see all my pictures together, I find a thing in common among them... **elegance.**

#### 4.1.9 Childlike design

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Childlike design	Childlike design of labels Playful design of labels Elicited feelings of genuine food

Table 14: Childlike design

During observation (participant A; H; I; M; N; P) there were some suggestions that colourful and playful visual images used in labels, almost if they were drawn by a child, enhance participants' impulsivity. The pictures taken during the observation, displayed below, show some of the visual images in this category. There seemed to be a general consensus that images reminding participants of childlike design would motivate them to buy the respective food brands on impulse. Some participants appeared to be attracted to childlike design because it transmitted to them an idea of authentic and genuine food. In addition, there seems to be a link between their childhood memories and playful design.

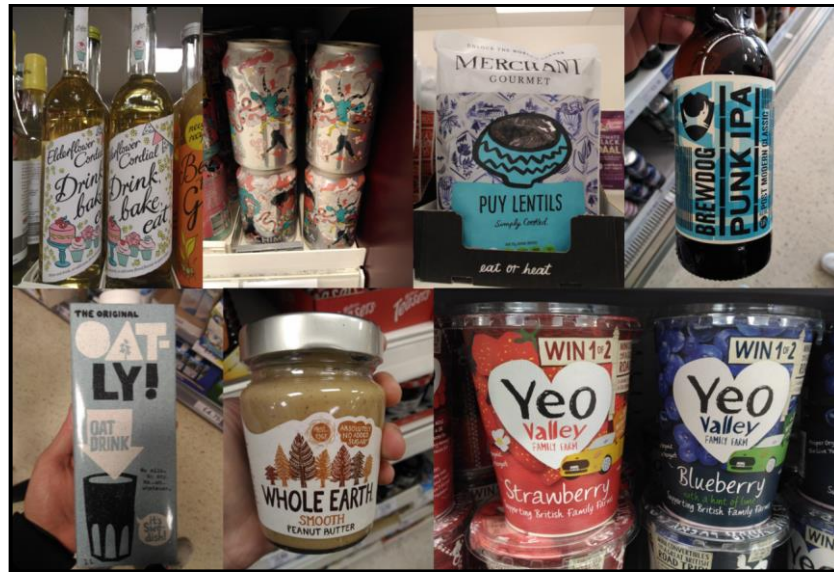


Figure 35: Observation – Childlike design

Also during interviews, there was a sense amongst participants that visual images that appeared having a ‘childlike design’ and ‘playfulness’ were capable of triggering their impulsive purchases. Among the perspectives identified by participants, it is worth noting that images that fit in this category were defined: “more attractive” (participant A, C, D, I and O); “gratifying for your eyes and catch your attention” (participant B); “in my opinion the best idea to attract people to buy that product” (participant F); “attractive, trigger emotions” (participant G); “very important” (participant H); “attractive and appealing” (participant L) and “fun” (participant N).

In one case, for example, participant D stated: “colourful packaging and childlike images with animals make me think about my childhood and they are funny as well”. Another interviewee, participant H, when asked to expand on this issue, said: “colourful and playful design definitely have an impact on me...I do not know, maybe because I like strange shapes so if something is different from the other things I’m more likely to buy it”. The same participant, in a different task aimed at grouping her images, labelling them, and describing them, suggested:

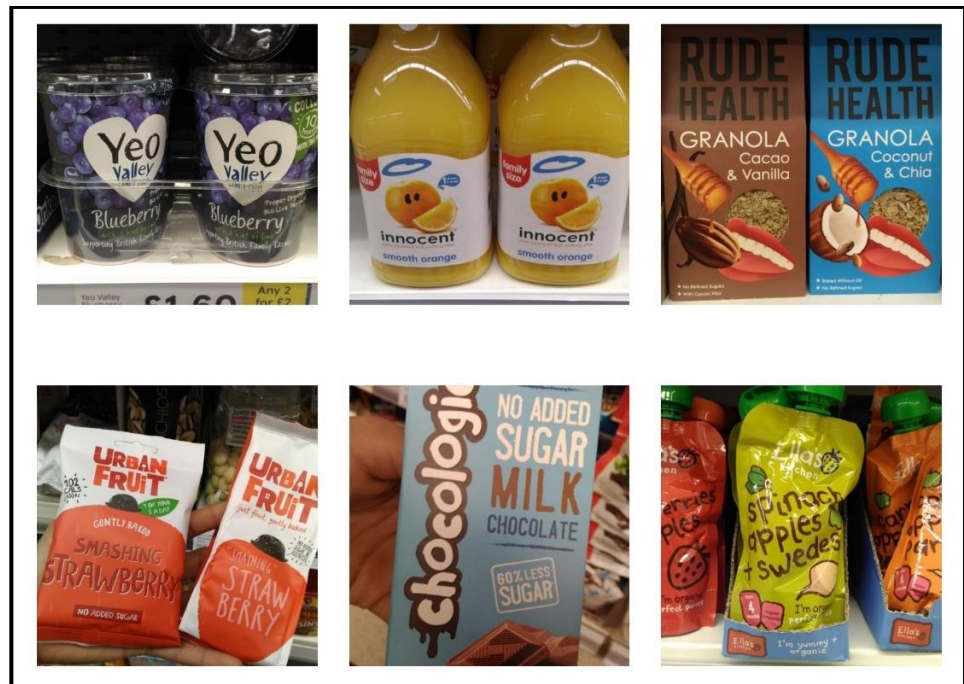


Figure 36: Participant H – Childlike design

These are the usual go-to products for me, it has a lot of colour, **it's very childish**. If I went to buy a lot of food, this would be inside it... Or if I found them at the airport, I would buy three of them to eat in the plane. Even if it wouldn't fill me, **it would make me happy because it's full of fruit and funny**... Also, I am a fan of fruit and strawberries as you can see here as well. Like when it is on the package, I'm going to buy it!

The same participant, referring to the Yeo Valley yoghurts shown in the image above, added: “I love these cans of yoghurt with fruit from these brands so much that I wanted to grab them all because they look so cool and playful”. On a similar note, referring to the Ella’s Kitchen brand on the bottom right of the image above, she stated: “it also makes me really excited about eating it because of their package and the playfulness... and having the food things in my hands and squeezing it is good”. Taken together, these results suggest that there is an association between visual brand cues linked to childlike design and playfulness and participants’ impulsive food buying.



Figure 37: Participant L – Childlike design

The importance of ‘childlike design’ was underlined also by participant L, who referring to the image above suggested: “This one is really attractive for me: the image is appealing and the colours too. The font also is really important, it’s really attractive ... I prefer simple and colourful font, almost childlike design”. Also in this example, childlike design appears linked to positive participants’ responses which, in turn, seems to play a role within their impulsive decisions when food shopping. This theme emerged also from an online conversation with participant P who stated:

[Interviewee P] there were more but I already ate them today [Go Ahead Yoghurt breaks] ... so they are little “healthy” snacks, some more **directed to children or babies, but still, I feel better to buy these than buying other snacks and I eat them.**

[Interviewer] Is there anything in particular that appeals to you in the children-like design?

[Interviewee P] That it is **more pure, from the design and from the content** ... and they have this feeling: “**hey, mother, you want to give your child something good and healthy? Take this!**” And obviously again... strawberries 🍓

#### 4.1.10 Authenticity

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Authenticity	Authenticity  Tradition  Elicited feelings of trust

Table 15: Authenticity

During observation, approximately two-thirds of the participants appeared attracted by visual brand cues that transmitted an idea of authenticity and tradition (participant A; B; C; D; E; I; L; M; N; O; Q). Transmitting authentic and traditional feelings appeared to enhance participants' trust in the brands that endorsed them (the pictures taken during observation shown above display some of the visual images in this category). Other adjectives used by participants to express this concept were: "trustworthy"; "original", "simple", "natural", "traditional"; "genuine" and "competent". Furthermore, the shape of the packaging seems to be important too in a way that authentic and traditional visual brand cues, sometimes nearly "vintage style" (participant C), symbolised trust.



Figure 38: Observation – Authenticity

Also during the interviews, a common view amongst interviewees was that images that transferred an idea of authenticity and tradition triggered their impulsive purchases. Among the perceptions of participants, it is possible to note that authentic and traditional images: “make you think to buy a quality product and being part of a tradition or a small family” (participant B); “look real” (participant C); “are rewarding and attracting” (participant N). Commenting on the images shown below, to provide another example, participant E said:



Figure 39: Participant E – Authenticity

Here we have got savoury stuff, we've got the Camembert le Rustique [French accent – proudness]. Yes, it looks very nice because **it looks natural also from the packaging** - the images are quite nice, **authentic and natural**, not like the usual cheese that you buy. **The countryside**



**reminds me of something exclusive, natural, traditional, healthier...**  
well it's not really healthier, but something better than Pringles maybe?

In all the examples above, the perceived authenticity of the images used appears linked to positive participants' responses which, in turn, seems to play a role within their impulsive decisions when food shopping. When asked to describe the content of an ideal image they could not find, participant N ("if it was done in a traditional way in a can would be much better") and E ("I would be more impulsive if I went to the supermarket and buy something like made on the spot or made the same day – something more authentic and tastier as well"), respectively, stressed once again the importance of perceived authentic food. Another two interviewees, participant A and N, on the same line of thinking, but alluding to the notion of tradition, created the following fictional story:


	<p>There was a man called Ian, he was working in his garden, and suddenly something fell on his head, he picked it up from the floor and it was a big yellow bright lemon. He thought mmmmmh... That would be nice on bread. Maybe I could make a lemon curd, I wonder if anyone has ever made that before? So he went back home and tried and tried different recipes and finally he made a lemon curd. He took a slice of bread, spread on it, and it was delicious! And so he decided, yeah, maybe I should sell this... And there you go, this is the story of the lemon curd, <b>tradition and dedication packaged in a tin!</b></p>
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Figure 40: Participant A – Authenticity


	<p>The story is that there was this family living in a forest, high up in the mountains, and they didn't have any food, so the dad was working but the mum was not working, and they had 3 children. So, the mum decided to <b>go into the forest to pick the peanuts</b> with their kids. So from the peanuts they decided to smash the peanuts and see what it was coming out of the peanuts. Smashing the peanuts, the kid accidentally made fall some cream in it, maybe like milk (laugh)... butter and they realised that melting the butter with the peanuts could actually work and <b>it was like a good combination, and one of the kids decided to try and it was delicious.</b></p>
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Figure 41: Participant N – Authenticity

In both fictional stories above, the elicited authenticity appears linked to positive participants' responses which, in turn, seems to play a role within their impulsive decisions when food shopping. As shown in the dialogue below, the importance of images transmitting a feeling of authenticity emerged also in the online conversation with participant C.

[Interviewee C] This one [wine] I like it because it transmits a message, their design is quite particular, **it looks like an old printing, it looks authentic.**

[Interviewer] And why do you think people consider this important?

[Interviewee C] I think people would value the authenticity of the product, **even the wine looks more authentic.**

#### 4.1.11 Health

Theme	Definition	Subtheme	Codes
External direct trigger	Stimulus found in the shopping environment directly triggering participants' impulsive food buying	Health	Nothing added Healthy food Organic food

Table 16: Health

During observation, visual brand cues associated with healthy food, and health in a broader sense, appeared capable of affecting participants' impulsive buying. For instance, participant L, referring to the images above, argued: "I am attracted by the packaging. Everything organic and colourful is eye-catching, looks healthy". Similarly, participant H, pointing at one of the products bought impulsively suggested: "I really like when products look healthy and there is nothing added to them. See for example here is written "directly pressed and no added sugar. These seem to be the healthier alternatives". These findings suggest that visual brand cues related to healthy lifestyles have the capability to trigger participants' impulsivity.



Figure 42: Participant L – Health

Also during interviews, visual brand cues that triggered mental associations with health appeared capable of affecting participants' impulsivity even if there was a rational acknowledgment that those foods marketed as healthy may in fact not be categorisable as such. Participant E, for instance, referring to the images presented above, stated: "They are kind of healthy, more or less. Yoghurt, that should be the healthy, that is organic with honey so there should be less sugar and cereals – they look like healthy stuff even though they are not really". Another

participant commented: “The things that have been made even months before are not good - I'd prefer something healthier” (participant I). The significant role of health in participants’ food choices is highlighted also in the following quote from participant L:



Figure 43: Participant E – Health

Nowadays there is a trend to be more aware about healthy food, about organic food, isn't it? I think nowadays there is a trend, **it is enough to write on a package organic to make you feel good** [...] there is more knowledge about the products, about what to eat, and about what not to eat, and people feel it is more important to eat good food.



Figure 44: Participant N – Health

Participant N, to provide another example, referring to the images presented above, which were retrieved because they were capable of triggering her impulsive food choices, stated: “This one is healthy food [peanut butter], is super healthy brand. This one as well, it's protein and that's why I sometimes buy them without thinking”. The role of health-related cues can also be observed in the online conversation with participant H shown below:



Figure 45: Participant H – Health

[Interviewee H] Impulsive behaviour to eat them because they look delicious (and they are actually).

[Interviewer] Thanks for sharing, why do they look delicious?

[Interviewee G] Because there is a big image on the front that shows the cereal and the fruit. This is my consideration: **the green pack make them seem healthier.**

## 4.2 External indirect triggers

The findings of this study have shown that hedonic brand cues perceived by the sense of touch, taste, sound and smell when elicited by, or interacting with, hedonic visual brand cues, can trigger participants' impulsive food buying. As the following sections discuss, a variety of perspectives were expressed to show the

way in which participants' sensorial engagement could trigger impulsive food-shopping. As a result, the present research raises the possibility that participants' impulsivity can be altered by exposure to indirect triggers found in the shopping environment. The following sections discuss the indirect triggers shown below providing evidence to support them.

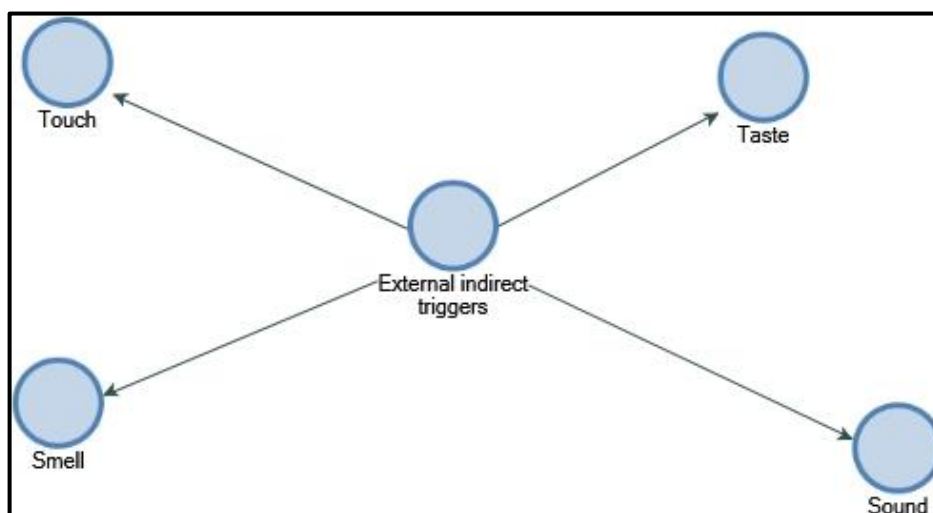


Figure 46: External indirect triggers (NVivo nodes)

#### 4.2.1 Touch

Theme	Definition	Subtheme	Codes
External indirect trigger	Stimulus found in the shopping environment indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues.	Touch	Texture of the products  Inferred texture following visual brand cue exposure

Table 17: Touch

During observation some participants appeared to pay particular attention to the texture of the products bought (participant C; D; G; H; M; N; O). Participants' vulnerability to buy on impulse seemed to be enhanced by being able to touch the desired products. Even when participants were not able to touch a specific product because of its packaging (e.g. Kettle crisps shown below), they seemed to pay attention to the texture that they believed the products may have while eating them. When asked if the participants could infer the texture of specific products from way they looked, they confirmed that it could be the case (participants G; N; O).



Figure 47: Observation – Touch

Furthermore, some interviewees argued that the appearance of products enabled them to infer the way in which they would feel when touching them. This contingent tactile perception, in turn, appeared capable of motivating participants to purchase those items on impulse. For example, when participant N was asked to expand on her sensorial engagement when buying on impulse, she commented: “The easiest one is touch. Because I think I may have tried already so I remember how it feels”. Commenting on the importance of touch in her impulsive purchases, another interviewee, participant H, said:



Figure 48:  
Participant H –  
Touch

So for example this Innocent bottle, if you see all the others bottle of juice inside the refrigerator most of them look like the squared shape bottle and they have fruits on it and everything but Innocent makes it differently. **They have this round and see through shape, see-through bottle, and if you touch it you basically see what you get...** Often juices are made from concentrates and they look really stupid in the glass and like fake, but here you actually see the fruits swimming inside...They look more real, **nice to touch**. Like I love to have it on the table and **just touch the bottle because it feels so soft and silky**. Also, the lid is different from the others, because usually lids are smaller in size, but this one is like really big... I drink it often and I know exactly the taste, the feeling in my tongue, **I know how the bottle feels on top and the whole bottle when I touch it...** And the whole thing is something so well-known by me and I really like every part of it.

#### 4.2.2 Taste

Theme	Definition	Subtheme	Codes
External indirect trigger	Stimulus found in the shopping environment indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues	Taste	Taste of the products Inferred taste following visual brand cue exposure Memory of the taste

Table 18: Taste



During observation it was suggested that the idea of the way in which particular foods taste may trigger participants' impulsivity (participant P; Q). The concept of "melting in the mouth" seemed to be relevant and images that transmit this feeling were capable of triggering participants' impulsive buying. Furthermore, the majority of those interviewed felt that the way in which a specific food brand looks is capable of enabling them to imagine the way in which it may taste. This link is best illustrated in the observation of participant F who commented: "You think that something very good to see can be something very good to eat – it's my case". When asked about the reasons why this is the case, a variety of perspectives emerged. Participant D, for example stated that "imagining the taste" of foods enhances his impulsive purchases. Another interviewee, participant A, alluded to the notion of being able to imagine new tastes by staring at the packaging. Participant B, on the other hand, stated: "I can imagine how it would taste because I'm a returning customer".

This view was echoed by participant O who, when asked whether her sensorial engagement may have a role to play with her impulsive purchases, argued: "One hundred percent. That's what I imagine every time ... I buy something on impulse, I would imagine the taste. And if the taste makes me feel good, makes me enjoy it, that is when I would impulsively buy it". This theme was supported also by participant D who, referring to the image below, stated:



I think this package is really simple, but at the same time you can see the content... When you can see the product, I think it is better because **it's like you can taste it in some way with your brain...** So, yeah!

Figure 49: Participant D – Taste

A common view amongst interviewees was that the memory of the taste, if they had experienced the food before, could be elicited by the visual images used by the brand. One informant, participant M, stated: "Yeah, I think it's more about the taste, I imagine the taste in my mouth, or I remember the taste and I feel it in my mouth a bit". Furthermore, another interviewee, participant D, reported: "I know

that this kind of chocolate is very crunchy, and it tastes very good. The content is melting in your mouth, it's really rewarding". Other responses to this question included: "for the creme brulee for example you know that the top is 'cracky' and the bottom is creamy, so I can imagine it because I have already eaten that, and I can feel it in my mouth" (participant N). Finally, participant N, when personifying the brand shown below, stated:



I really like the pouring chocolate, **and because of the brand, I know the feeling that I have when I eat Lindt...** it melts in your mouth. I buy it, and if I think about it, or if someone asks me, I would say it's Swiss, but I wouldn't think about it. Sugar addiction!

Figure 50: Participant N – Taste

### 4.2.3 Sound

Theme	Definition	Subtheme	Codes
External indirect trigger	Stimulus found in the shopping environment indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues	Sound	<p>Sound of the products when eaten</p> <p>Inferred sound following visual brand cue exposure</p> <p>Sounds in the shopping environment</p>

Table 19: Sound

During observation, participant D suggested that remembering the jingle during food shopping when exposed to the related visual brand cues that elicited it, was a factor impacting his purchase decisions. Another interviewee, participant G,

stated: “The music in the supermarket is really helpful. If there is a happy music, for example, I feel more happy and I would tend to buy more on impulse”. On the same line of thinking, but imagining the sound that a certain product may produce when eaten, participant D argued: “This one is a very well-known product [Ferrero Rocher], and whenever I look at it, I can imagine the sound of the paper, the golden paper when I open it and I love it”.

On the other hand, if the music is too loud, it seemed to be detrimental for participants’ shopping experience. Sound appeared to be an important factor for participants’ sensorial engagement, but it has been mentioned also as capable of decreasing impulsive purchases (participant A; G). The sound of “busy environments”, for example, appeared to put participant A not at ease. The lack of adequate fit between the sounds found in the shopping environment and participants’ preferences was seen as a negative factor by the participants of this study (participant C; G; P). A small number of those interviewed (participant G; H; L) suggested that auditory stimuli either found in the shopping environment or elicited by the images used to promote food brands, could enhance their impulsive purchases.

#### 4.2.4 Smell

Theme	Definition	Subtheme	Codes
External indirect trigger	Stimulus found in the shopping environment indirectly triggering participants’ impulsive food buying when elicited by, or interacting with, visual brand cues	Smell	Smell of the products Inferred smell following visual brand cue exposure Memory of smell

Table 20: Smell

During observation, a variety of perspectives were expressed in relation to the role of smell in impulsive purchases (participant A; B; C; D; E; G; H; L; M; N; O; P; Q). Smell seemed to be particularly important when participants bought foods on impulse, especially fresh food. Furthermore, the smell of foods seemed to play a role within participants' emotional involvement consequently increasing their vulnerability to impulsive purchases. During observation it was also suggested that the memory of the smell seems to play an important role by triggering nostalgic feelings (participant A; B; E; H; L; N; O; P).

There seems to be a unanimous consensus that the visual images are capable of reminding participants of olfactory cues. The smell of freshly baked foods, or related visual brand cues, for instance, appear to lead participants in believing that the foods sold are authentic, traditional and home-made (participant A; C; D; G; H; N; O; Q). Among the items most cited it is possible to note croissants, fresh food in general, coffee, pizza and bread. The pictures taken during the observation shown below display some examples of images selected by participants while discussing the role of smell within their impulsive decisions.

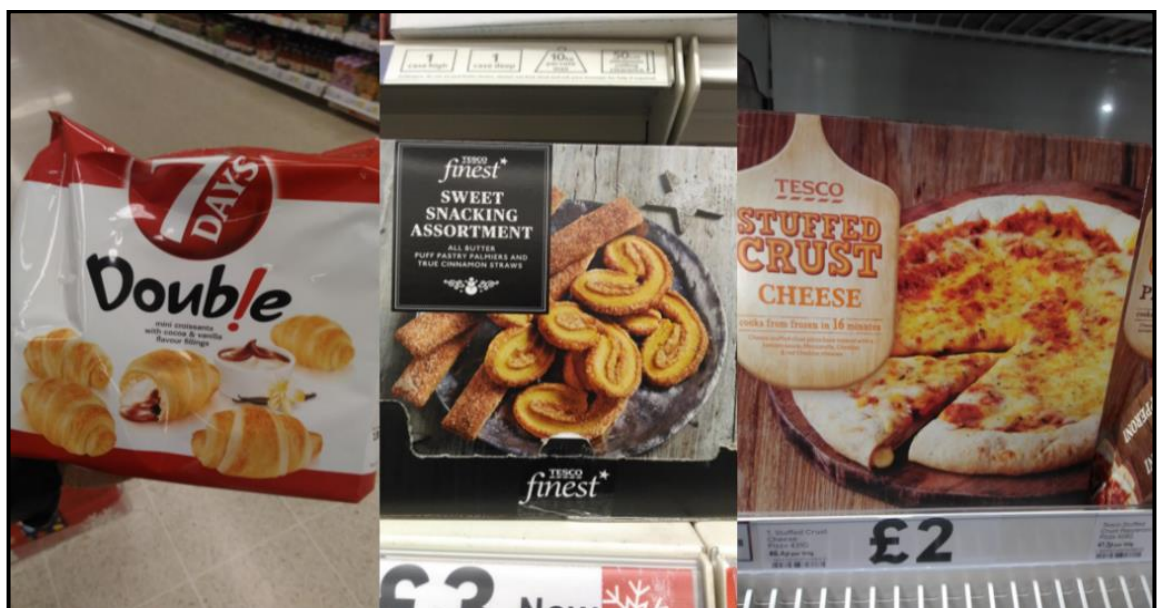


Figure 51: Observation – Smell

Another reported causal factor affecting participants' impulsive decisions was the smell that these foods had, or the smell that participants had previously learnt and associated to those foods. For example, participant L, referring to this issue, stated: "I always think about the smell, maybe because even when I'm cooking, I always smell everything. So the first thing I imagine is the smell of the products I am buying or their texture ... Yeah!". Similarly, participant G, while looking at one of his images brought to the interview as triggering his impulsivity (fresh bread), argued: "What I really like about grocery store shopping is the ready-made part of it, the bakery one especially, because it smells good!".

Although some participants mentioned that the smell of products is more important for foods that come without packaging, some other participants stated that they could infer the smell of specific foods from the way these foods looked. For instance, participant I, expanding on this issue, commented: "Yes, I do that every time and it depends on the product. When I see the packaging, I can imagine the smell and the taste and the texture of the product". This view was echoed by another informant, participant G, who stated:

I think the **smell is the most important and the most decisive one**. If I can smell what I'm gonna buy it's really good for me and **I will definitely be led to buy it**. I mean not in the packaged products, because you can't smell those, **but you can still imagine what this smell would be** if you have already tried them once you would be likely to buy them a second time if they were good.

### 4.3 Internal direct triggers

The findings of this study have shown that several internal direct triggers can influence participants' impulsive food buying. Internal triggers are factors related to participants' personal characteristics but they are elicited, or magnified, by hedonic visual brand cues exposure. As shown in the figure below, factors related to reward, mood, temptation, vulnerability, impatience, guilt, foraging calories, home-made feeling and social belonging appear to trigger participants' impulsive food buying. As a result, this study suggests that the abovementioned triggers may act as reinforcing factors of participants' food-shopping impulsivity. These internal direct triggers are discussed in the following sections providing the related evidence to support them.

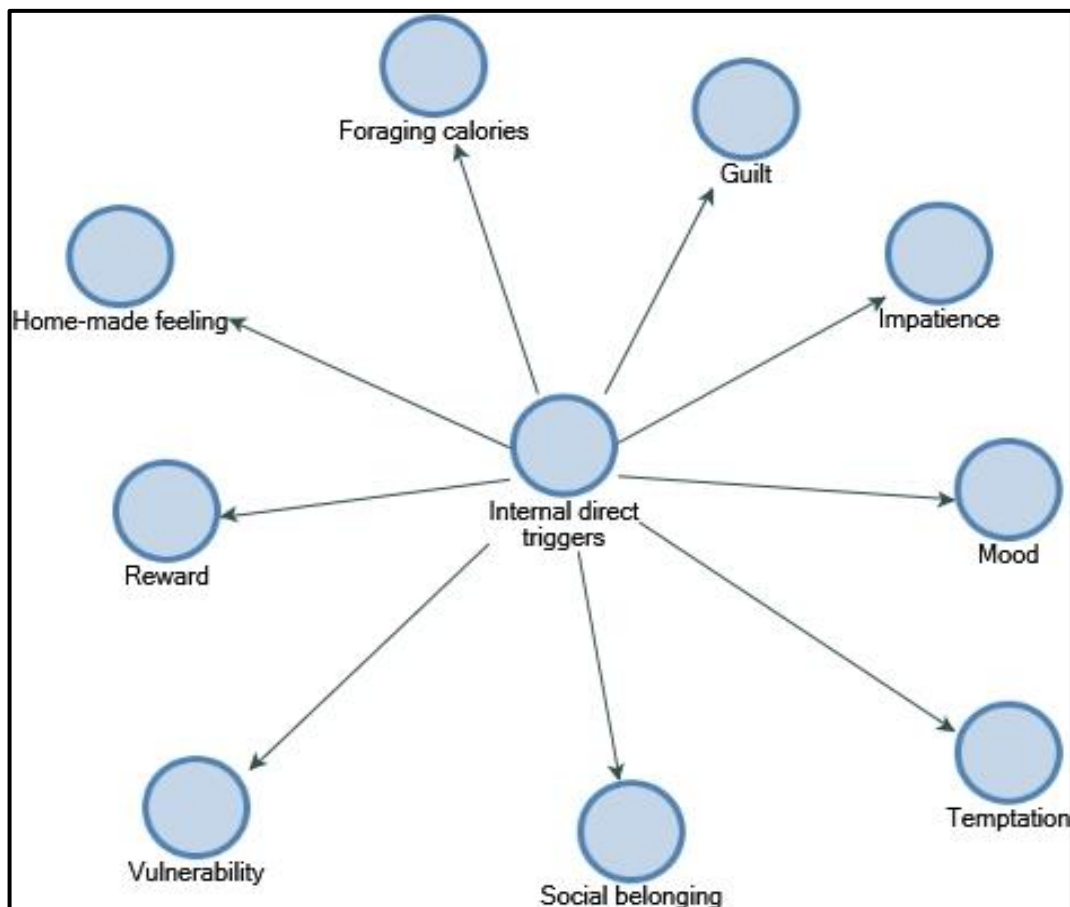


Figure 52: Internal direct triggers (NVivo nodes)

### 4.3.1 Reward

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Reward	Feeling rewarded Feelings of happiness Treating oneself

Table 21: Reward

A recurrent theme during interviews was a sense amongst participants that the reason why they buy impulsively is because they feel rewarded. Generalised impulsivity appeared linked to reward seeking purchase behaviour as if the food items, or brands, bought on impulse were capable of bypassing cognitive control activating reward-seeking. Among the elements mentioned by interviewees when buying impulsively, it is possible to note: “I feel rewarded” (participant D); “it is satisfying” (participant E); “is the most rewarding activity” (participant M); “it makes me feel relieved” (participant Q); “it makes me happy because I will finally have a fridge full of delicious meals” (participant G); “people love to consume” (participant H); “it makes them feel happy” (participant I); “they are looking for that reward in what they buy” (participant O); “they see eating as a reward, leisure activity” (participant Q). Taken together these findings further highlight the link between reward seeking and impulsive buying.

The participants on the whole demonstrated awareness that certain visual brand cues were capable of enhancing their natural tendency to purchase impulsively. For example, interviewee M, suggested that some people buy food impulsively

because “there is something that triggered them”. A common view amongst interviewees was that rewarding images (examples provided below) could be considered as triggers of their impulsive food shopping. Among the factors mentioned by participants, it is worth noting that rewarding images: “make people feel happy” (participant A); “cause positive feelings” (participant B); “are made for that specific purpose” (participant Q); “are gratifying” (participant Q); “make me feel satisfied” (participant E); “are satisfying” (participant I); “make them [people] feel satisfied” (participant P); “make me feel satisfied” (participant L); “make people feel worthy” (participant N). These findings show that exposure to hedonic visual brand cues can trigger participants’ reward-seeking.

Treating oneself after visual brand cues exposure appears another factor capable of affecting one’s tendency to purchase food impulsively. This theme came up for example in discussion with participant A who stated that some people may buy impulsively because “they get to treat themselves” (participant A, E). This view was echoed by participant B, who, speaking about impulsive food shopping, argued that “a lot of people go to the supermarket for a leisure activity, not for needs of food”. The concept of impulsive food shopping as a reward seeking activity can be inferred also from the following quote from participant G who, when asked about the reasons for her impulsive food shopping, stated:

There is something about **enjoying food shopping** that really applies to me. **I really enjoy going to the supermarket and doing my food shopping**. I think it's because I like cooking **so it is a moment in which I got time only for myself ... just like taking time for yourself ...** and that's really a moment in which I do something and **there is only me**. So is not only about food shopping, **it is also a moment for myself**.

Participants’ tendency to act impulsively as an outcome to reward proximity can be inferred also from participants’ responses to the provided vignettes. For example, participant C, answering a hypothetical vignette stating: “Today I’m doing it!” replied: “Bring it on!”. Similarly, participant H, addressing the same vignette, replied: “Finally! You are talking about it since weeks!”. Other responses



included “I support you, you deserve it sometimes!” (participant N); “Ha Ha let’s do it together!” (participant M). The concept of reward appears also interlinked with the consequences of buying some foods impulsively. For example, participant L stated: “in my case [I buy food impulsively] because I love food, I love cooking, so I’m happy to do food shopping”.



Figure 53: Participant M – Reward

During interviews, for instance, in all cases the informants reported that the generalised impulsivity originated from reward-seeking behaviour was in fact also brand specific. Participant O, for example, referring to one of her images representing one of the brands she bought impulsively (Fox’s Cookie mini) stated: “I like your other variations, you must be good. I should try”. Participant I, speaking about Twix, which had been bought impulsively, stated: “This is my rewarding food. For example, when I’m studying and I’m in the library and I feel hungry I buy Twix”. Moreover, participant N, referring to Lindt chocolate bought impulsively suggested: “Yeah so, it’s like a reward after a long day, for example I can get a Lindt!”. Furthermore, participant M, creating a vignette by personifying

one of her brands bought impulsively, shown above, stated: [Minis] “Do you want some pleasure?” => [participant M] “I look forward to!”. Other examples useful to illustrate participants’ impulsivity towards specific brands can be found in the following section in which participants commented their images of brands bought impulsively:

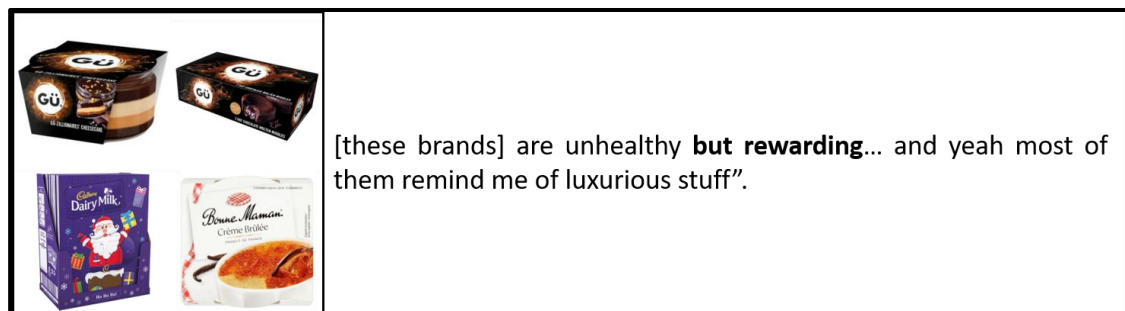


Figure 54: Participant E – Reward

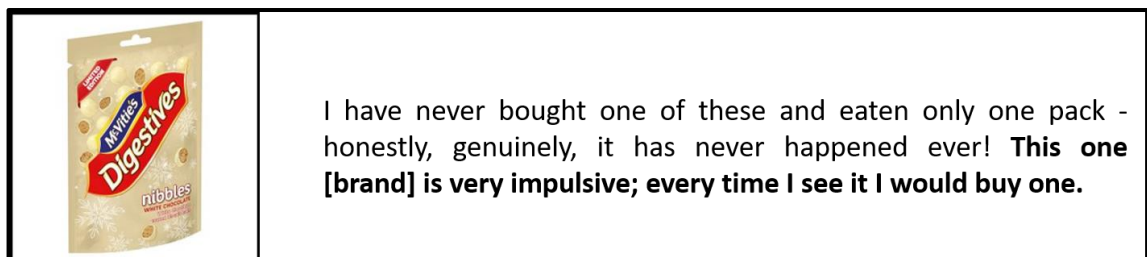


Figure 55: Participant O – Reward



Figure 56: Participant F – Reward

### 4.3.2 Mood

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Mood	Positive mood Negative mood Willingness to improve mood through food consumption

Table 22: Mood

During observation two divergent and often conflicting discourses emerged in terms of positive and negative moods impact on participants' impulsive decisions after visual brand cues exposure. Specifically, positive moods appeared capable of making participants buy: "impulsively things they don't need" (participant A); "things without any reason" (participant A); "less junk food" (participant C); "less fatty foods" (participant D); "more row ingredients" (participant E); "something very healthy (not cooked in 10 minutes) but where you actually have to spend time on it" (participant F); "more and healthy food" (participant G); "more expensive food" (participant H); "impulsively" (participant I); "probably something healthier or try new products/brands" (participant M); "veggies" (participant N). On the other hand, negative mood seemed to trigger participants to buy: "impulsively" (participant A); "anything that will make them feel better (chocolate, crisps, chips and all junk food)" (participant A); "more expensive things that make you feel gratified" (participant B); "junk food" (participant C, G, I); "unhealthy food" (participant D); "ready meals" (participant E); "impulsively" (participant M); "candies" (participant N); "comfort food" (participant O).

Also during interviews, a recurrent theme was a sense amongst participants that their mood could be capable of influencing their impulsive decisions. For example, participant M said that she buys impulsively “maybe because of the mood in that specific moment”. Talking about this issue, also participant O said:

I go so many times to the supermarkets **with so many different moods**, so there is nothing in particular I would buy all the times. It **depends on how you feel on that particular day**. If you feel more **frustrated** for example, you are more likely to buy sugary things. If you're **stressed**, you are more likely to buy alcohol. If you're **hungry** you're more likely to buy more ready meals. It depends even on the time of the day.



Figure 57: Participant B – Mood

Similarly, being exposed to visual brand cues appeared capable of affecting participants' moods, which in turn impacted their impulsive decisions. This theme came up for example in discussions with participant B who stated that rewarding images make people feel “better mooded”. Similarly, participant C suggested that rewarding images make people feel “better”. Among the other issues mentioned

by participants, it is possible to note that rewarding images make them feel “better” (participant D) and “happier” (participant E). The role of mood is observable also in the description of participant B who, referring to the images above bought impulsively, stated:

These are three different types of products, three different styles of packaging. **Those can be three different moods.** If I am **stressed**, I am likely to buy the first one [wine]. If I feel **frustrated**, I am more likely to buy ice cream. And then if I feel in a **good mood**, I would buy this [Coca Cola].

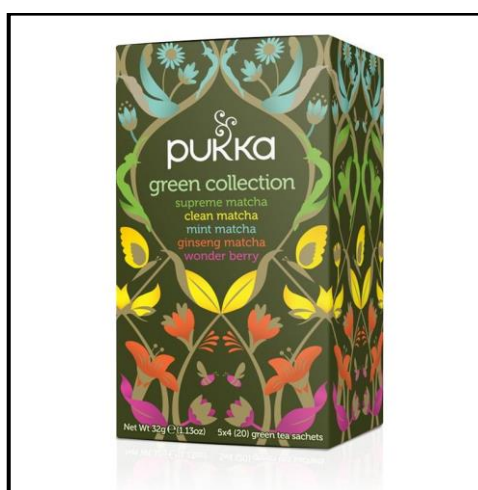


Figure 58: Participant N – Mood

The pursuit of happiness through impulsive food shopping appears to be particularly important for some participants. For example, participant E commented: “When food shopping, some people get carried away because they’re happy”. In addition, participant N, personifying one of the images that triggered her impulsivity, shown above, stated: “[Pukka] What is the first word that comes to your mind when you see me? [participant N] Happiness”. On the same note, participant F stated that “sometimes being ‘greedy’ [while buying food impulsively] can make you feel a little bit happy”. Furthermore, participant O stated that “when people buy food on impulse feel happier”.

### 4.3.3 Temptation

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Temptation	Inability to resist temptation Poor willpower Lack of self-control

Table 23: Temptation

During observation, the majority of participants stated that buying on impulse is comparable to a need and having poor willpower is seen as an enhancing factor. The inability to resist temptation, although participants acknowledged that the related reward may be only temporary, appears to be a meaningful cause of participants' impulsivity. This is exemplified in the quote from participant F who suggested that "buying on impulse is sometimes buying with no sense – so you can feel happy when you get it and sad when you realise it". This view was echoed by another informant, participant E, who stated: "Yeah, it feels good but that's only a placebo".

The inability of resisting temptation, even after feelings of regret, is sensed also in the way participant I addressed one of the vignettes saying: "I shouldn't have bought it!" at which she replied: "I know, but I felt that I really wanted it". Similarly, participant F addressing a vignette stating: "buy now, think about it later!" replied "this is not the way, but I'll follow you". Likewise, participant G, reflecting on her impulsive food choices said: "Now time to move on! Well after this cookie..." showing a simultaneous willingness to change and inability to resist temptation.

The inability to resist temptation is also mentioned by participant G who, referring to the image below, stated:

This makes me think about Hansel and Gretel, their house made out of sweets, and in the story **the children get stuck because the house is so good**, everything is made out of sugar.



Figure 59: Participant G – Temptation

In all the examples above, an inability to resist temptation when participants are exposed to visual brand cues appears linked to positive responses which, in turn, seems to enhance participants' impulsive behaviour when food shopping. When buying on impulse, participants appear to “go with the flow” without self-control, as participant L put it. Having self-control is seen as a factor decreasing vulnerability to impulsive food purchases. Specifically, among the factors decreasing temptation mentioned by participants, it is worth noting: “having a strong self-control” (participant D); “a great self-control” (participant G); “[consumers] don't have enough self-control” (participant I); “try to control yourself” (participant I); “nobody can stop me either, just myself” (participant N).

Participants on the whole appeared to express a will to increase their self-control but acknowledged they may fail to resist temptation. For example, speaking about their visual images of brands brought at the interview, participants stated: “I wish I was determined” (participant E); “I'm so weak, I get carried by my emotions” (participant G); “I'm trying to control myself but if I really like something it is not easy” (participant L); “I think you are a very rational and self-controlled person

[hypothetical person buying what they planned for], because even if I plan to buy just what I need, I always buy at least one thing I don't need or plan" (participant M). Some factors, such as the idea of sharing food with family members or friends, appeared capable of being perceived as a reason why some participants could make an exception to their self-control. For instance, participant I, referring to the images below, stated:



Figure 60: Participant I – Temptation

This is the kind of food that I see at the supermarket and I always want to buy it but never buy it. I know it is not a healthy food so I feel really guilty if I buy pizza so I leave it in the supermarket. **Every time I go food shopping for my mum and my brother, I buy pizza for all of us though.**

The inability to resist temptation emerges also from an online conversation with participant L who, referring to the image below, stated: "I bought this wine because I really like the label, and I couldn't resist it".



Figure 61: Participant L – Temptation



Similarly, participant C, building a word association with one of the images of a brand bought impulsively brought at the interview (Mars bar) stated: “Rubbish and I feel stupid when I buy it”. This shows a conscious awareness of the unhealthy food choice but inability to resist temptation as it had been bought on impulse.

#### 4.3.4 Vulnerability

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants’ personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Vulnerability	Felling vulnerable because of negative events Stress Addiction

Table 24: Vulnerability

During observation, there was a sense amongst participants that being vulnerable as a result of a variety of factors may enhance their impulsive food shopping. Among the factors mentioned by participants during observation, it is worth noting: “being hungry” (participant D; I; E); “how they feel” (participant F); “stress” (participant A, E, O); “failure or period for women” (participant A; G; I; L; M); “being hangover” (participant A; F) and “stress and boredom” (participant B; E; G; L; O).

Also during interviews, feeling vulnerable because of a variety of factors emerged as significant to explain impulsive food shopping. Among the factors mentioned by participants affecting their tendency to buy impulsively, it is possible to note: “feeling vulnerable” (participant A, B, D, E); “frustration” (participant B);

“depression” (participant C); “being hungry” and “feeling down” (participant D); “sadness” (participant E); “bad days” (participant F); “indecision” (participant E); “feeling insecure” (participant M). Participant L, highlighting the role of vulnerability on her purchase behaviour when being exposed to visual brand cues at the supermarket, stated: “I know the feeling [feeling vulnerable], I am exactly the same, and I usually buy a lot of junk food”. Similarly, participant N stated: “Me too [buy on impulse when feeling vulnerable], I’d like a chocolate right now!”. This view was echoed by another informant, participant I, who stated: “I think that when one is sad, is more vulnerable and he or she can buy something impulsively”. The importance of vulnerability in food choices is highlighted also in the following quote from participant O who suggested:

Sometimes people get like this when they are tired... They just get very cranky, **in this depressive mood in a way**, you just get **very down**, and you start overthinking your life pretty much ... And I would go all day without eating nothing bad but **then at 2 am I would just pile it on**, because this is the time when you get into down and **comfort foods would boost your energy and make you feel better**. I think **that you're more vulnerable at that time at night and have less control over your behaviour**.

Being vulnerable as a result of stress was often mentioned as a factor affecting participants’ impulsivity. According to participants, stress makes people buy: “things they don’t need impulsively” (participant A); “more irresponsibly” (participant B); “useless stuff” (participant C); “junk food” (participant E; D; I); “impulsively” (participant N); “food” (participant O); “junk food, things not needed” (participant F). The participants were unanimous in stating that when stressed, their vulnerability to buy on impulse when exposed to visual brand cues was enhanced. Talking about this issue, another interviewee admitted buying food impulsively “because if you are always busy and stressed, you can't think about food too” (participant M). Similarly, participant O, referring to the image below suggested: “This would be...that friend that you go to when you have problems!

That would be that. I can actually give them a name (laugh) – it would be like a stress friend, something like that”.



Figure 62: Participant O – Vulnerability

Participants' vulnerability, and related feelings of guilt, emerge also during an online conversation with participant I who metaphorically 'confesses' her sins by saying:

[Interviewee I] Hello Ale, **I have sinned!**

[Interviewer] What do you mean by that?

[Interviewee I] I was hungry when I was at the supermarket, and when I'm really hungry I need something salty so **I bought stuff on impulse**

[Interviewer] One should never go to the supermarkets hungry eh?!

[Interviewee I] **Yes father Ale**, you're right

During interviews even the concept of addiction emerged as being capable of altering participants' vulnerability when making food choices. Among the quotes

mentioned by interviewees, it is worth noting: “it [buying food impulsively] is like a vicious circle” (participant D); “people are addicted to sugar” (participant B); “everyone has addictions!” (participant E); “I do the same [buying food wanted knowing it will not be the last time]” (participant G); “[consumers] are addicted to the way it makes them feel” (participant N); “[consumers] have impulsive cravings and are addicted to food” (participant O). The concept of addiction emerges also from the following quote by participant O who, describing one of the images brought at the interview because of its impulsive-triggering properties, stated:

Because it gives us that good feeling at first as well, but then after you do that... I know myself that **I cannot for instance open a bag of these and then not finish it**. For example, I go for one, that's my intention, **I just finish it and I go for one package!** It is because it will make us feel good ... it triggers your energy levels... **give me more, give me more of that!** Food supplies these days provide food which is so much junks, so **it makes us addicted to that**, and once we like it, there is customer for life.

Having an impulsive personality and taking risks appear also to be facets related to addiction consequently increasing participants' vulnerability. For example, participant L argues that some people may buy impulsively “just because like me they are impulsive in everything they do!”. Furthermore, participant O stated that “everything is about impulsive behaviour, and I am an impulsive person in everything I do, it is just my nature”. The role of addiction can be inferred also from the quote of participant H who stated: “We are addicted to all the added sugars, fats, and chemicals in the products, that's why we buy impulsively”. Similarly, participant M stated that people feel rewarded by certain visual brand cues because “are addicted to food”. The concept of addiction emerges also in the online conversation with participant D who said: “I try to diet but chocolate is addictive for me!”.

### 4.3.5 Impatience

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Impatience	Being impatient to obtain the wanted food Decreased time to make purchase decisions Instant gratification

Table 25: Impatience

During observation, impatience emerges as a defining characteristic of impulsive purchases (participant A; C; F; H; M; P; Q). When buying on impulse, participants do not appear to think too long about what they are buying. Conversely, they stated to be emotionally engaged with their purchase as they feel satisfied only when the item wanted is bought. Furthermore, participants seemed to have an urge to eat the desired products as soon as possible. Finally, there were some suggestions that excitement and happiness about eating the products bought would be replaced by feelings of sadness when participants considered the idea that the products will be over once eaten, as they appeared to be aware that they will want more of it (participant F; H; P). For example, participant H stated: "I can't wait to eat it but I'm already sad it'll be over soon!".

Also during interviews, a common view amongst participants was that impatience is a distinguishing characteristic of impulsive food shopping. Among the reasons why people may feel impatient when buying food impulsively, it is possible to note: "they might not have the chance to find it again later" (participant A); "they want it" (participant C); "they have been looking forward to buying it for a long time" (participant G); "they aren't gonna go shopping again soon" (participant E); "it wakes up excitement" (participant H); "they feel that they really need it"

(participant I); “we are accustomed to having everything” (participant L); “it gives them a sort of reward, higher level of satisfaction” (participant M); “they want to experience it” (participant N); “I hate being patient for what I want the most” (participant N); “I do that too [being impatient], sometimes...” (participant O); “isn’t that normal [being impatient]?” (participant O); “because of brain games!!!” (participant Q).

Decreasing the time needed to make decisions, whether voluntarily or involuntarily, appears to be a characteristic of impatience. A variety of perspectives were expressed in relation to the role of time in impulsive decisions, such as: “I just have to buy it without thinking too long” (participant A); “just buy straightaway without getting nervous!” (participant C); “don’t procrastinate too much [if you want to buy it]” (participant D); “because otherwise you feel very guilty about it [if one thinks too long about buying something]?” (participant H); “I never think too long if I like something, I just buy it” (participant M); “I will join you [buying it without thinking too long]” (participant N); “maybe if you wait long enough, eventually you will stop wanting it” (participant A); “yes, but then you start overthinking when you go home” (participant M). On the other hand, voluntarily increasing the time needed to make a decision, by “thinking twice before buying it” (participant B) for instance, appears to decrease impatience and consequently impulsivity.

There was a sense amongst interviewees that time pressure could enhance their impatience. Among the factors mentioned by participants, it is worth noting that time pressure while food shopping made them buy: “impulsively” (participant A); “without paying attention to the price, quantity and quality of products” (participant B); “junk food” (participant C); “unhealthy food” (participant D); “ready meals” (participant E); “the only ingredients they need or something very random with no sense at all” (participant F); “too much” (participant H); “impulsively” (participant I); “food easy and fast to prepare” (participant L); “foods they don’t need, or not good/appropriate for them” (participant M); “the cheapest food” (participant N); “the first thing they see” (participant O).



Figure 63: Participant G – Impatience

The concept of impatience appears also linked to the achievement of instant gratification through food shopping. This theme came up for example in discussion with participant B who stated that those who buy impulsively “don’t have better things to do so it may gratify the person on the moment”. Furthermore, participant A suggested that some people may feel impatient because “they feel that they deserve it [the food they want to buy]”. The concept of quick reward emerged also with participant G who, referring to the image above, stated: “So, this one is quite rewarding because I don't have to cook, it's a ready-made, so it's a quick reward”.

#### 4.3.6 Guilt

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants’ personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Guilt	Perceived negative consequences of impulsive food buying Feelings of guilt Feelings of regret

Table 26: Guilt

During observation, feelings of regret and guilt were felt by participants while buying items on impulse (participant A; B; C; D; G; H; M; P). Furthermore, feelings of guilt were enhanced if participants could not find some form of justification to buy foods on impulse. Specifically, during observation, the following perceived negative consequences of impulsive food shopping appeared to trigger feelings of guilt: possible health risks; increase in body weight/caloric intake; weekly budget over expenditure; gluttony and weaknesses related to indulging. There were some suggestions that a need for gratification and feelings of guilt appeared to coexist simultaneously (participant A; B; C; H; M). While buying on impulse, participants appeared to feel satisfied due to buying something rewarding, and guilty due to potential negative consequences. Among the factors affecting participants' feelings of guilt, it is worth noting health risks (participant A; D; H), embarrassment for the money spent (participant A; B; M; P), body weight and body image (unanimous), caloric intake (participant A; H) and weekly budget over expenditure (participant D; G; P).

After observation, when participants were asked to reflect on their impulsive purchases, participants generally overthought the negative consequences of spending money without having the actual need for the foods bought (participant A; B; D; G; M; P). In addition, after reflection participants felt guilty of gluttony. "I shouldn't have done it!", stated participant M for example. Participants also stated during observation that lack of control can generate feelings of guilt and inadequacy in this society. Finally, it is worth noting that there seems to be a negative correlation between time passed after impulsive purchase and satisfaction levels.

Also during interviews, a common view amongst participants was that all the images brought at the interview, as well as triggering their impulsive behaviour, generated feelings of guilt. As participant A stated: "These are different products, but they are similar because I really like them, and they make me feel guilty every time I buy them (laugh). This feeling of guilt is related to all my images". A variety of perspectives were expressed in relations to possible causes of guilt originated



from buying impulsively. Among the ones cited, it is worth noting that participants felt guilty of their impulsive decisions because of: money spent [those who buy food impulsively]: “spent money when they shouldn’t” (participant A); “can’t afford it” (participant B); and perception of non-utilitarian purchase [those who buy food impulsively]: “don’t need it” (participant C); “buy useless things” (participant D); “bought something they didn’t need” (participant F); “know that they don’t really need the thing they’ve bought” (participant I).



Figure 64: Participant B – Guilt

On the same line of thinking, participant B, referring to the image shown above, stated: “I feel guilty with Coca-Cola because it makes me feel gratified in that specific minute”. The participants were unanimous in the view that indulging in impulsive gratifying food shopping would have inevitably generated feelings of guilt. Participant A, for example, stated that when people buy food on impulse feel “happy for a while, and later guilty”. Other interviewees, when asked how they felt when buying impulsively answered: “it makes me feel guilty” (participant

E); “I feel even more guilty” (participant P); “I feel guilty” (participant I, M). Commenting on this issue, one of the interviewees, participant I, said:

Breakfast comes to my mind when I see them [chocolate biscuits], and **I feel a little bit guilty**. Guilt can be a positive and negative feeling. For example, when speaking about moral actions it can be a sort of **control of your impulses**. It can be negative if you feel depressed for everything you do.

Another factor contributing to enhance feelings of guilt amongst participants was their general preference for unhealthy food. Among the reasons stated by participants, it is worth noting that consumers may feel guilty because they: “buy unhealthy food” (participant E, H, M); “are fatty” (participant D); “realise later that they actually bought something not healthy” (participant F); “are wasting their money on food that make them fat” (participant G); “tend to buy junk food” (participant N). Being vulnerable and falling into temptation by buying food impulsively is also seen as a factor generating feelings of guilt. As interviewee M put it:

It is hard to stop yourself from doing it, and **guilt is the direct consequence of that**. If you are not capable of stopping yourself, you feel bad. Because **it is perceived as a weakness**, you know, if you fall easy into temptation. Generally, society perceives that.

The perception of negative consequences associated with increased body weight in the future appears evident also in the following quote by participant G who stated: “When I feel vulnerable I tend to buy food on impulse - silly me, I have bought Nutella again, I will put on weight!”. In addition, participant H, answering to a hypothetical character who had just bought food impulsively said: “Now you become fatter and fatter”.

### 4.3.7 Foraging calories

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Foraging calories	Highly caloric food  Junk food

Table 27: Foraging calories

During observation, in all cases the informants reported that visual images representing highly caloric foods triggered their impulsive purchase behaviour. Among the elements bought on impulse, or mentioned by the participants as triggering their impulsivity, it is possible to note: “gratifying savoury items” (participant B); “sweets” (participant C); “desserts” (participant M); “cakes” (participant N); “chocolate” (participant D); “ready meals” (participant E); “unhealthy snacks” (participant P); “sugary foods” (participant O); “fat foods” (participant H); “junk food” (participant Q) and “carbohydrates-based foods” (participant A). Taken together, the common view amongst participants during observation was that when the images appear in the high spectrum of caloric intake, or as participant H stated “creamy/cheesy/fatty”, they significantly attract their attention and may trigger impulsive purchases.

Also during interviews, when asked about the kind of food participants were most likely to buy on impulse, they were unanimous in the view that highly caloric food achieved the top place on their list. Among the items mentioned by interviewees, it is possible to note: “sweets, junk food” (participant F); “chocolate, ice cream” (participant G); “junk food” and “comfort food” (participant H); “chocolate” and “junk food” (participant I); “chocolate, crisps, and any kind of junk food”

(participant L); “chocolate/cookies/junk food” (participant M); “junk food, chocolate, fries, ready-made food” (participant O); “ice cream” and “cakes” (participant N).



Figure 65: Participant A and N – Foraging calories

This view was echoed by another informant who commented: “Consuming is one of the most important things in our life and highly caloric food do it great” (participant H). As the comment below illustrates, also participant O reinforced this view by stating:

**People generally live to eat, not eat to live.** That's the one... yeah! Because **food is addictive**, everything we eat is addictive... so when our bodies are used to get so much food available, at all times, everywhere, then we don't see that as thousands of years ago when you had to hunt for your food - something like that! ... so, as we are constantly thinking about foods, **whenever we see something that reminds us about energy and calories we just go and buy on impulse.** And as I am obsessed already about that, it makes us stressed and that makes our impulsive purchases even worse.

Similarly, when the participants were asked to group their images according to meaningful criteria, label them and describe each group, the majority created groups that fit in this category. For example, participant A, referring to the image above stated: “these ones are, yeah, junk foods. It's bought impulsively, not particularly expensive, not something that you need, not an everyday product”. Another interviewee, participant N, carrying out the same task, and referring to the image above, commented: “And these ones are the bad guys - sugar addiction”. Taken together, the findings of this study further support the idea of visual brand cues signifying highly caloric food as a powerful reward triggering impulsive food buying. Additional images chosen by participants as triggering their impulsivity are provided in the figure below.



Figure 66: Participant I, N and C – Foraging calories

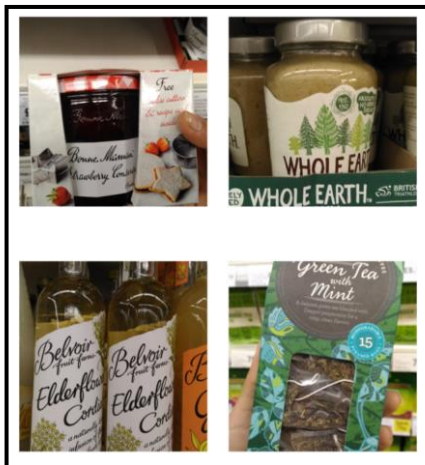
This theme came up also in the discussion with participant O who stated: “Well the stimuli are very important because if we have this addiction already within us it's so much easier for food companies to sell their food”. The tendency to buy highly caloric foods can also be observed in the following quote from participant E who stated: “When you buy something impulsively you don't really buy healthy stuff, you just buy the things that come to your mind and make you think about a good taste”.

### 4.3.8 Home-made feelings

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Home-made feelings	Home-made food Food made with love Feeling loved

Table 28: Home-made feelings

During observation, it was suggested that visual stimuli that transmit “home-made feelings” may trigger participants’ impulsivity (participant A; B; E; F; N; O). Specifically, participants appeared to be attracted by foods that look prepared with care by others and “made with love” (participant N). The idea of “warmth” transmitted by home-made foods appeared to be relevant as well as it seemed to be linked to the perception of genuine food. This home-made feeling seemed to be enhanced by the ability of participants to smell the related foods. For instance, the smell of pizza and other freshly baked foods at the supermarkets, appeared to make the participants believe that the foods sold were more authentic, traditional and home-made (participant A; F; N; O). The comment below from participant C illustrates this point:



If it is something familiar, it would probably trigger me... **If the food looks home-made, it really triggers me.** If it looks home-made, it probably is nicer, and it has a better flavour... And it would bring me to experience the food differently

Figure 67: Participant H – Home-made feeling

A recurrent theme also in the interviews was a sense amongst participants that visual brand cues that made participants feel loved, often conceptualised as “home-made feeling”, were a causal factor capable of affecting their impulsive purchases. Among the perspectives identified in relation to this theme, is it worth noting that visual brand cues in this category made participant feel: “warm” (participant C); “more attracted to the food” (participant D); “more satisfied with their purchase” (participant A); “rewarded” (participant E); “well and willing to buy the product” (participant G); “confident about their choice” (participant H); “loved, and it’s definitely something that will catch people’s eyes and make them buy it” (participant F); “more likely to buy it” (participant I); “loved” (participant P); “as if they are feeding their body ‘with love’” (participant Q); “as if they crave love” (participant N); “part of a small family” (participant B). Another interviewee, participant G, referring to the image below, commented:



When I saw this picture, I thought: Oh, I would definitely buy it! **I think that because it looks like it is home-made, that attracts people.** And I think the box reminds you of when you do your own cookies. And I think is quite important.

Figure 68: Participant G – Home-made feeling

Participant M, stressing the importance of food made with love, creating a fictional story based on one of the pictures brought at the interview, stated:



Figure 69: Participant M – Home-made feeling

This is the story of an old English man who has a big garden where he's just producing vegetables for himself because he cares about eating his own. He has four grandchildren and they come to eat in his house once a week. So... every time he's like super excited but also **he wants to prepare the best things for them because they are still young so he wants them to grow well and healthy and strong.**

He thinks that his vegetables and **the food he prepares is gonna help them to be healthy and strong in the future.** So yeah... So every time he prepares his vegetables the children are happy, but they feel that it is just... yeah boring! In this food there is something missing, because they are used to eat more fatty foods and more fried things. Basically, they think that that is just too healthy for them.

So he tries to find a solution and tries cook them something with vegetables but more appealing **and that makes them feel happier to go there and eat with him once a week.** So, he decides to take his vegetables and cut them very slightly and fry them and that is where Tyrrells come from. And the first time the children try them it is lovely because they didn't realise it was like carrots, beetroots, boring vegetables... but it still had good properties, so they loved it.

In all the examples above, and especially in the narrative constructed by participant M, feeling loved and transmitting love through food appear linked to positive participants' responses which, in turn, seem to play a role within their



impulsive decisions when food shopping. This theme emerged also from an online conversation with participant N who, as shown below, stated:

[Interviewee N] For example there is this nice place that I like that it's near my place where they make fresh bread... **it's homemade** and I tried it one time but I always go there because I want to buy it.

[Interviewer] Do you think that this idea of being home-made is important?

[Interviewee N] Yes! For me it is... yeah! **I guess that that person put efforts in it so I'm expecting that it's gonna be better than the one ready**

#### 4.3.9 Social belonging

Theme	Definition	Subtheme	Codes
Internal direct trigger	Trigger of impulsive buying related to participants' personal characteristics elicited, or magnified, by hedonic visual brand cues exposure.	Social belonging	Socialising through food consumption  Popularity

Table 29: Social belonging

During observation, it was suggested that the symbolic value that food has in terms of socialisation may trigger participants' impulsivity. In many cases, it was reported by participants that food could be bought impulsively with the purpose of being shared with friends, partners or family members. The images taken during observation shown below display some examples of images selected by participants while discussing the role of this factor within their impulsive decisions. There seems to be a general agreement suggesting that when this is the case, it

leads them to buy on impulse those foods (participant C; E; F; H; L; N; P). Furthermore, during observation there were some suggestions that the meals that they could prepare with their respective partners/friends with the foods bought may bring them to buy those foods on impulse. As a last factor, it is worth noting that feeling socially judged can be detrimental for participants' impulsive purchases.



Figure 70: Observation – Social belonging

Also during interviews, a common view amongst participants was that visual brand cues that reminded them of social moments shared with family members or friends may enhance their impulsive purchases. Amongst the images selected by participants, it is possible to note: Tyrell's crisps (participant E); Cadbury chocolate (participant H); Coca Cola (participant C) and Oreo (participant P). Using food as a tool to enhance bonding among friends and/or family members appeared to be a common dynamic in participants' behaviour. This theme came up for example in discussions with participant E who, referring to Tyrell's crisps (shown below), stated: "These crisps make me think of parties with friends so...

yeah... music alcohol, this kind of things". Another interviewee, participant M, when asked to describe her impulsive shopping behaviour, commented:

... but for me it's fun also when I do it with another person [food shopping]. Above all **when we buy something together to cook together because we talk about what to cook** and it's a very nice topic for me, I like it, so it's fun. **Sharing that experience with someone is important. Food becomes a tool to arrive at that sharing moment.**



Figure 71: Participant E, O and I – Social belonging

Furthermore, participant O, creating a hypothetical dialogue between Cadbury chocolate (shown above) and a vignette character, wrote: "Buy me, it's Christmas [Dairy milk] => or of course, one for me, one for my friends and family". A similar reaction can be observed when examining the hypothetical dialogue that participant I created referring to a different brand, Ferrero Rocher (shown above), in which the concept of family emerged as a mental association to the brand image. As an additional piece of evidence, it is possible to note the conversation with the same participant, interviewee I, who stated:

There are two siblings, brother and sister... one day they want to see a film so they buy Cipsters [crisps] to eat them during the film but the sister discovers that the brother eats all the crisps alone so she felt really really angry, she went to the supermarket and she buys a package of crisps for herself alone. In the end **they decided to buy another pack of crisps to**

**divide them during the film** and they went home, watch the film and eat the crisps.




	<p>This would be a young person, probably a man, I don't know why, someone who does extremes sports to live, <b>they would be really good with people, really sociable, they like to interact with many people - They would get a lot of attention from everyone else and stand out in the crowd.</b></p>
<p>... she would be a person that comes into the room <b>and talks a lot and takes all the attention.</b> She's going forward on people and <b>she's not shy to talk to people...</b> Also, with the clothes, she takes a lot of attention. She would have long hair, really outgoing, she would speak directly and <b>she would take a lot of conversation on her side.</b> She would be a centre located person she lived in Edinburgh</p>	
	<p>I imagine him short and big, <b>very friendly</b>, because I have been having this every single day, that's everything I eat ... <b>So friendly!</b> I would say they are <b>extrovert, definitely, and very very good with people</b>, very nice.</p>

Figure 72: Participant C, H and O – Social belonging

Moreover, promotions by celebrities was mentioned by participant H as capable of affecting her impulsive decisions. The importance of popularity can also be inferred from the examples shown above in which participant C, H and O, personifying their respective brands, highlight the significance of social skills within the created characters. Based on the findings, it can be suggested that visual brand cues related to social belonging may have a causal influence over participants' impulsivity. This theme emerged also in an online conversation with participant A who stated:

[Interviewee A] The packaging is kind of the same, they are very similar [Nescafé - Cadbury]. They are both very famous brands, so people would think "**oh, well that is a famous brand so must be good!**". They are very popular, at least in the UK

[Interviewer] And why do you think people consider being popular important?

[Interviewee G] Well, **you assume that if a brand is popular, it is good.**

#### 4.4 Internal indirect triggers

The findings of this study suggest that internal indirect triggers related to brand recall, habits, nostalgia and childhood memories when elicited by, or interacting with, visual brand cues found in the shopping environment and internal direct triggers, were capable of affecting participants' impulsive purchases. Taken together, the findings of this study have shown that the way in which participants learnt how to consume brands had an impact on their likelihood to purchase those brands on impulse in the future. The following sections discuss the internal indirect triggers shown below providing evidence to support them.

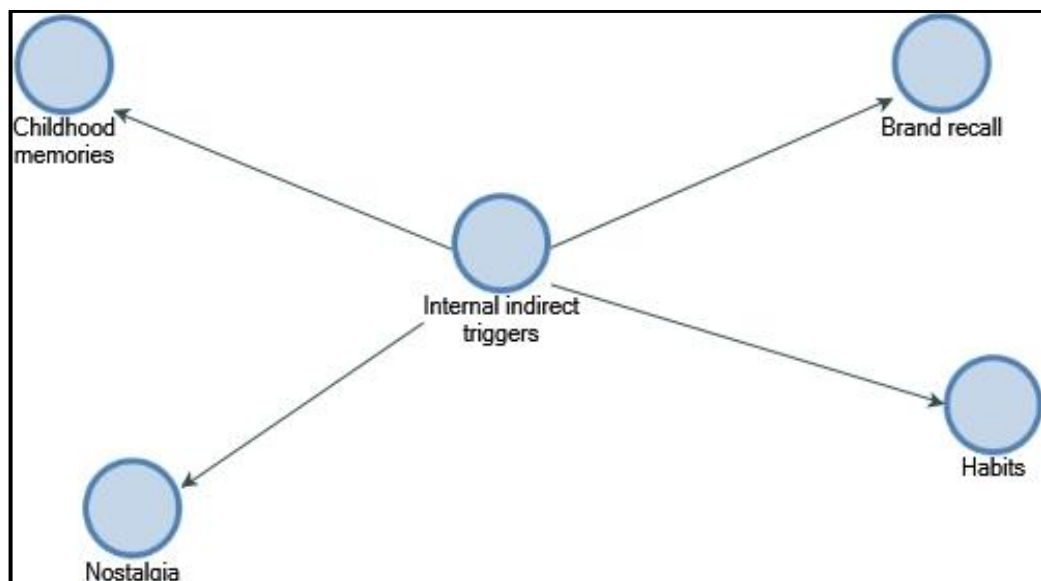


Figure 73: Internal indirect triggers (NVivo nodes)

#### 4.4.1 Brand recall

Theme	Definition	Subtheme	Codes
Internal indirect trigger	Factor related to participants' personal characteristics indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues.	Brand recall	Familiarity with the brand Memories elicited by brand exposure Recalling the brand during food buying

Table 30: Brand recall

During observation a common view amongst participants during exposure to visual brand cues was that familiarity with the brands recalled in their memory is an important factor as it appears to decrease the risk associated to the purchase (participant B; E; H; I; N; O; Q). It was suggested that participants tend to buy on impulse brands that they have previously tried or are familiar with. Some felt that previous experiences with brands matter in a way that seems to be less risky for the participants to conclude the purchase (E; H; O). Furthermore, recalling previous ads during consumption can have a positive impact on participants' impulsive buying as it seems to increase familiarity and decrease perceived risk. Among the brands mentioned by participants, it is possible to note: Magnum (participant C); Cadbury (participant E); Pringles (participant F) and Innocent (participant O).

Remembering meaningful aspects of food brands during visual brand cues exposure is expressed in a variety of ways by participants also during interviews. Nevertheless, what seems to be constant is that the experiences ingrained in participants' memory have an impact on their impulsive food shopping decisions when a visual cue reminds them of the related brand. Among the issues

interviewees felt may affect their impulsivity, it is worth highlighting: “[consumers] might remember a catchy song or slogan” (participant A); “[consumers] had thought about buying it before” (participant E); “[consumers] recall also the emotions they were experiencing” (participant G); “it wakes up emotions you connected with” (participant H); “I keep thinking all day and the following days about that thing” (participant M); “[consumers] have to remember what to buy and what not to buy” (participant I); “[consumers] relate the positive image with the food” (participant P); “the ad goes in your mind, influencing your decision” (participant Q); “it [memory of the ad] makes the product more close than ever” (participant N).



Figure 74: Participant M – Brand recall

The importance of memory in affecting participants’ impulsive decisions can be inferred also in the quote below in which participant M, referring to the image above, stated:

**It brings us many memories** ... the other day for example we were talking about this product here [Minis], because we used to buy the first year when I came here in Edinburgh, **so it reminds me a lot memories of the first year, like good ones when I was meeting with my friends eating the stupid cereals...**It's nothing special but still I feel attached to that product because **it reminds me of good memories.**

The role of brand recall, and learning in a wider sense, can be inferred also from the following quote in which participant D said: “This taste [of Nutella] is imprinted in my mouth, for example this is something I cannot forget because it is delicious”.

The importance of memory can be observed also in the way in which participants appear to remember other brand related factors such as advertisement of the chosen brands or place of consumption when exposed to the related visual brand cue. For example, participant L, creating a fictional story based on Danone Activia, commented: “One day there was a guy with problems of constipation, and he asked me some advice to fix this problem instead of taking medications. As a consequence, I suggested to take two Activia, one in the afternoon, and one before going to bed. In the end it was very helpful”. In all the examples above, the way in which participants remembered the brand, once exposed to the related visual brand cues, appears linked to positive participants’ responses which, in turn, seem to play a role within their impulsive buying. This theme emerged also in an online conversation with participant I who stated:

[Interviewee I] Ale, I ate chocolate!

[Interviewer] Any specific reason?

[Interviewee I] I wanted something sweet and I've already tried this cream

[Gu], **I remember the taste**, so I knew I'd liked it



Figure 75: Participant M – Brand recall

Another interviewee, participant M, referring to the brands shown in the image above, stated: “This one [Stoats Porridge] reminds me of Uni because every time I go to the supermarket I check if the new brand has new products. This one



[Tyrell's and Twinings tea group] also is related to a place because I used to buy these in Germany a lot". The role of memory in impulsive purchases appears transferable also to places as shown in the following quote from participant M:

I think about something I'm really attached to, I'm really sensitive to...I am in love with Brazil and I did a voluntary experience there, so **everything that is related to Brazil, I love it!** If I see a product that is related to Brazil or it is benefit for Brazil, because I worked there, and I saw horrible situations, **so if my purchase helped a little bit the people there I would totally buy it for the concept itself.**

#### 4.4.2 Habits

Theme	Definition	Subtheme	Codes
Internal indirect trigger	Factor related to participants' personal characteristics indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues.	Habits	Habitual purchases Being used to the brands bought Repeated purchases

Table 31: Habits

During interviews, some participants indicated that their food shopping habits may lead them to buy foods impulsively. A variety of perspectives were expressed in regard to possible habits affecting participants' impulsive purchase behaviour. Among the factors identified by participants, it is worth noting that some consumers may buy impulsively because: "are used to doing like this in their life" (participant D); "aren't gonna go shopping again soon" (participant E); "buy things they usually buy" (participant F); "are used to it" (participant H, O). Overall, it

appears that shopping habits, consciously or unconsciously, are a significant factor affecting participants' decision-making while shopping.

This view was echoed by another informant, participant D, who argued: "I think that people eat in different ways according to the situation ... However, I also think that the way people are used to, and the habits they have, impacts on what they eat". Another interviewee, participant F, when asked why some people find it difficult to leave without buying something they really like on impulse, replied: "It's something that maybe they had all the time and the fact they can't have it now can make them feel sad". The importance of habits with regard to affecting impulsive purchases can be observed also in the image below collected and grouped by participant M and N respectively.



Figure 76: Participant N and M – Habits

In all the examples above, shopping habits, either internal to participants or triggered by the related visual brand cues, appear linked to positive participants' responses which, in turn, seem to play a role within their impulsive buying. A small number of interviewees appeared also to acknowledge the unconscious influence of habits on their decision-making. For example, participant M argued that consumers may buy impulsively because they "don't think much about its

benefits/disadvantages”. Among the elements that ease participants’ impulsive decisions, it is also worth noting: “adverts and cravings” (participant O); “future consequences” (participant F) and “advertisement” (participant G). Finally, it is worth highlighting that one interviewee, participant O, as shown in the comment below, mentioned habits and also made a connection with childhood memories, which is an emerging theme discussed in the following sections.

I think that it [childhood memories] is very relevant **because that is when you form your habits, you become a person, and that will stay with you the rest of your life... And that is what all of these foods are aimed at, children, children, children.** All of it, pretty much.

The relevance of habits when shopping impulsively emerged also in an online conversation with participant N who stated:

[Interviewee N] I bought this [TUC] impulsively ... I said: why not?! Would be nice to have crackers with some good cheese 😊!

[Interviewee N] I had it twice and I remember I liked the flavour combined with the cheese, so **I wanted to repeat the experience again.**

#### 4.4.3 Nostalgia

Theme	Definition	Subtheme	Codes
Internal indirect trigger	Factor related to participants’ personal characteristics indirectly triggering participants’ impulsive food buying when elicited by, or interacting with, visual brand cues.	Nostalgia	Home separation  Family  Parental love

Table 32: Nostalgia

During observation, a number of issues were identified in relation to nostalgia provoked by visual brand cues exposure (participant E; F; H; O; P). There were some suggestions that nostalgic feelings are important in terms of enhancing participants' emotional engagement and feelings of safety. Furthermore, images that trigger nostalgic feelings are among the visual cues that bring participants to buy food impulsively. Some participants (E; H; O) argued that even the smell, or memory of, elicited by visual brand cues exposure, seems to play an important role within their impulsive buying because it triggers nostalgic feelings. The pictures taken during observation shown below display some examples of images selected by participants while discussing the role of nostalgia within their impulsive decisions.



Figure 77: Observation – Nostalgia

Also during interviews, a common view amongst participants was that brand cues that triggered nostalgic feelings were capable of enhancing their impulsive purchases of those brands. This theme came up for example in discussions with participant O, who, as shown in the following comment, identified separation from home, and nostalgic feelings about Christmas, as a cause for buying Nutella impulsively:



Figure 78: Participant M – Nostalgia

I shop impulsively all the time [pointing Nutella], especially food, **and childhood memories, especially the nostalgia, have an impact on me.** As a second-year university student, I can say that the separation, anxiety that is happening right now... **Because it was very hard for me to move away from my parents, or from my mum, especially...** Now this is the first year I haven't gone back at all, **it is the first Christmas that I am not spending with her,** so it's quite hard actually.

Other responses related to nostalgia included the concept of: home “every time I see this [Barilla] it reminds me of home” (participant L); family “because I’ve always done it [food shopping] with my mum for Sunday’s lunch and when I see this [pizza] and I think about it, it makes me nostalgic” (participant N); and, perhaps interestingly, a pillow “when I see this [Ferrero Rocher] and I feel that way [nostalgic] I would tend to look for physical contact, so I just had in picture a person hugging a pillow, it is a comforting feeling (laugh)” (participant I). Another interviewee, participant M, referring to the image below, linked the notions of nostalgia and home by commenting: “This reminds me of home, and it makes me think about home a lot. It makes me feel a bit nostalgic ... I'm impulsively attracted to it, it reminds me about good things”.



Figure 79: Participant E – Nostalgia

A small number of those interviewed suggested that visual brand cues that reminded them of typical foods from their respective countries of origin was a causal factor triggering their impulsive purchases. This is evident in the comment below from participant E who, for instance, stated: “authentic images make me happy because it reminds me of home, as I used to eat authentic home-made and organic food”. Similarly, another interviewee, participant F, commented “many times it has happened that I found an ingredient that reminded me of my childhood, and I bought it automatically without thinking that the taste will never be the same. Yeah, taste, touch, smell... all matter, definitely!”. The significance of nostalgia when shopping impulsively emerged also in an online conversation with participant N who stated:

[Interviewee N] I like when food reminds me of my own culture.

[Interviewer] Why do you think it is important that something reminds you of your own culture?

[Interviewee N] Because I know that my food is good, I mean **it reminds them of previous memories**, maybe a meal they had together when they were younger... I don't know. **The way their mum or the dad cooked food**, they think it was more tasty.

#### 4.4.4 Childhood memories

Theme	Definition	Subtheme	Codes
Internal indirect trigger	Factor related to participants' personal characteristics indirectly triggering participants' impulsive food buying when elicited by, or interacting with, visual brand cues.	Childhood memories	Participants' experiences in their upbringing  Participants' willingness to experience again their childhood

Table 33: Childhood memories

During observation, it was suggested that childhood memories after exposure to visual brand cues are capable of influencing participants' impulsive food shopping (participant A; B; F; G; I; M; P; Q). This phenomenon appears to take place despite participants' awareness that disappointment may occur because the products bought may differ from what they remember them to be. Furthermore, the smell of certain foods, or the memory of them, seems to play an important role within participants' impulsive behaviour because it appears capable of triggering childhood memories (participant F; G; M; P; Q). For example, one participant stated: "The smell of bakeries reminds me of my childhood back home" (participant O). Moreover, the country of origin seems to be an important factor within participants' impulsive food buying as it enhances participants' trust. Specifically, culture appears to be a synonym of trust and participants seem to prioritise foods that come from their own culture. Some participants underline that culture can be an important factor in terms of impulsive purchases because they trust more the foods they used to eat when they were children (participant A; F; G; I; M; P; Q).

Also during interviews, participants on the whole demonstrated that visual brand cues that evoked childhood memories could enhance their impulsive purchases of those brands. In their accounts of the events surrounding this issue, participants mentioned that childhood memories experienced when exposed to visual brand cues in the environment make them buy: “more impulsively” (participant A); “always the same products” (participant B); “food they are used to when they were a child” (participant C); “those products” (participant D); “more” (participant E); “food brands targeted at children” (participant G); “these foods” (participant I); “impulsively” (participant M); “cookies and it shapes a little bit how we purchase” (participant N); “that kind of ‘childhood’ food” (participant P); “a lot” (participant Q); “things they don’t even like any more” (participant P).

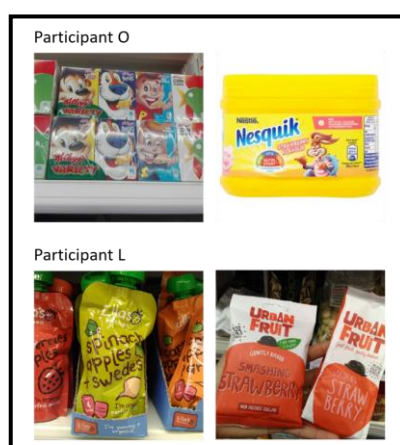


Figure 80: Participant O and L – Childhood memories

In two cases, participant O and L, when asked to group their images, label them, and describe them, referring to the images displayed above, suggested: “This one reminds me of home, of when I was a child, this is good quality, is good food, yeah!” (participant O); “I chose this group because all of these products remind me of home. They also remind me of when I was a child, when I was young” (participant L). A similar pattern can be observed in participant E’s quote who, when asked why he selected the image shown below, replied: “It reminds me of fresh pasta in my village because when you buy it, they give it to you in these kinds of bags ... I was like... wow! (laugh). It reminds me of the way I was brought up”.





Figure 81: Participant E – Childhood memories

There was a sense amongst interviewees that visual cues reminding them of Christmas, and related childhood memories, could affect their impulsive purchases. This is illustrated in the comment below from participant F who stated: “You know, emotional feelings are influenced by this. This one [Pandoro] reminds me of my childhood and... it reminds me of Christmas ... and Christmas reminds me of my family... so okay, that's emotional!” Similarly, this issue emerged in the fictional stories created by participant E and O, who, as shown below, stated:

	<p style="text-align: center;"><b>Participant E</b></p> <p>So there is a child that gets it before Christmas and <b>he's happy because it doesn't really have any stress</b>, so it's a <b>happy child</b> that wakes up in the morning, gets its chocolate, and <b>he's happy</b> and then when it's Christmas day everybody gathers, they eat the last chocolate together and then <b>they are happy</b>.</p> <p style="text-align: center;"><b>Participant O</b></p> <p>You've got this little girl called Penelope, and <b>Penelope is excited about Christmas</b>, and <b>she tries to make sure that is the best time of the year</b>. Penelope goes shopping with her grandmother for Christmas' dinner because her parents are busy so they can prepare staff before mum and dad come home, and Penelope sees this big poster which has an advent calendar on it, and <b>Penelope gets excited</b> because she remembers that she forgot to open her advent calendar</p>
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Figure 82: Participant E and O – Childhood memories

A similar pattern involving the brand Nesquik, can be observed in an online conversation with participant N who stated:

[Interviewee N] I bought this [Nesquik] today!

[Interviewer] Thanks! Have you bought it on impulse? If yes, what led you to do so?

[Interviewee N] I bought one package on impulse. I don't use to buy Nesquik, actually it's the first time after 4 years. I've seen it was on sale and **I wanted to experience again my childhood, it reminds me of Italian mornings before going to school.**

## 4.5 Causal mechanisms

The findings of this study suggest that participants' impulsive food buying is influenced by several causal mechanisms. Causal mechanisms (i.e. systems, processes and ways of acting) are more complex than causal factors as multiple processes appear to take place simultaneously. As shown in the figure below, six categories emerged from the data: value trade-offs; emotional and cognitive conflict; rational impairment; reward-seeking duality; guilt reducing strategies and compensatory consumption. Each category is explored in the following sections and evidence for the same is provided.

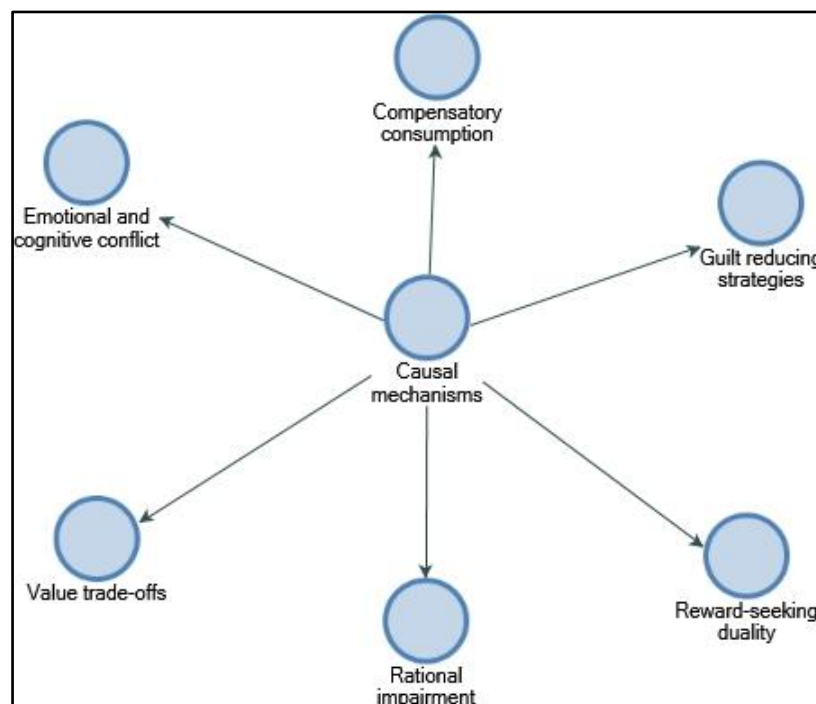


Figure 83: Causal mechanisms (NVivo nodes)

#### 4.5.1 Value trade-offs

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants' decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Value trade-offs	Positive values  Negative values

Table 34: Value trade-offs

During observation, a constant battle between positive and negative values appears to emerge from participants' attitudes and behaviours after visual brand cues exposure. Positive reinforcements such as rewards originated by buying on impulse appear to be weighed against aspired end states such as health-related lifestyles (participant B; D; E; F; H; L; N; Q). For example, it is suggested by participants during observation that when they purchase impulsively after visual brand cues exposure, there seems to be a feeling of instant gratification (positive value) which is then replaced by guilt associated to the items bought on impulse (negative value). The impact on body weight is often mentioned as negative value (participant D; E; F; L). Some participants suggested during observation that price is a factor that plays a particular role in their decision-making (participant B; E; H; N; Q). Specifically, sales promotions and low price are mentioned among the factors that may lead participants to buy more food on impulse. However, there seems to be a general consensus suggesting that participants do not mind spending more money if the items bought are particularly gratifying for them (participant B; N; Q).

Also during interviews, there was a sense amongst interviewees that food bought on impulse would either add value to them (gains) and/or remove it (losses). Among the positive values underlined by participants, it is possible to note: transparent and sustainable consumption (participant B); freshness (participant E), healthy food (participant D) and being healthy (participant L). The positive value that food represents for participants can also be inferred from a quote of participant L who stated: “I associate food with happiness, the important thing is not to abuse with junk food, try to buy organic healthy food, and try to eat often but just a little”. However, the persistent debate between positive and negative values was common among participants and it is particularly evident in the following quote from participant O who, referring to the image below, said:

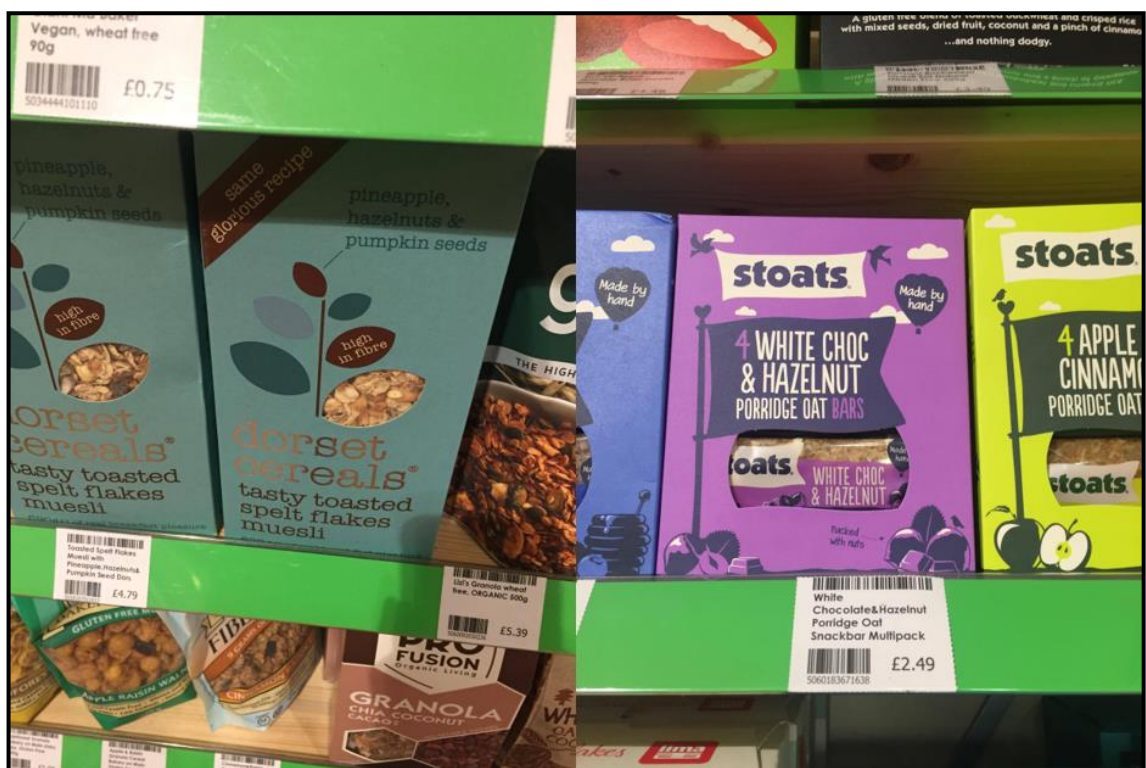


Figure 84: Participant O – Value trade-offs

**This is the friend who is two-faced**, very much so...two-faced yeah! Like you think is very very very good for you but in reality it is not... but you still buy it because you think is good! If you actually read the labels when you go into that stuff, you realise that is really bad for you. But you buy

because... “Oh, I’m good! I am in my good day today!” ... So yeah, it’s a two-faced friend... **“It’s like I’m good for you, but not actually!”**

During interviews, negative value was mainly represented by financial losses associated to impulsive food shopping. The participants on the whole demonstrated that although relative high price was not capable of stopping their impulsive decisions, it represented a counteracting force to impulsive food shopping. Among the reasons mentioned by participants, it is worth noting: overspending (participant A); weekly or monthly budget (participants B); being able to afford it (participant C; E; G; I); saving money (participants G; E); wasting money (participant O); being too expensive (participant I); the price strategy (participant N). Commenting on this issue in an online conversation (referring to her recent impulsive purchase of Maltesers) participant N argued: “I wanted something sweet and I got attracted by the reduced price”. This theme also emerged during interviews with participant D who, referring to the images below, said: “This one is very small, it is not expensive at all and so when you see it near their cashier, you buy it”.



Figure 85: Participant D – Value trade-offs

## 4.5.2 Emotional and cognitive conflict

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants' decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Emotional and cognitive conflict	Cognitive control over behaviour  Emotional involvement

Table 35: Emotional and cognitive conflict

During observation, participants were unanimous in stating that their impulsive decisions were affected by a simultaneous coexistence of rational and emotional aspects. Specifically, the emotional facet of their decision-making frequently represented a mechanism enhancing their impulsive decisions, while the rational element of their decision-making recurrently acted as a counteracting force that minimised their impulsive decisions. Talking about this issue after visual brand cues exposure, participant N said: "There are separate ways in which I make decisions in my head, one emotional and one more rational, more controlled". During observation some participants stated not to have too much regret for buying products on impulse because they believe that as long as they keep a balance between healthy diet and instant gratification it is acceptable (participant A; D; E; I; M; P).

This view was echoed by participant A who stated that she has a constant crave for sugary or highly caloric foods, and even though rationally she knows she should not buy them, there is an emotional involvement hard to control at times, especially after visual brand cues exposure. Similarly, many participants stated that they have low rational control over their emotional behaviour when they are

exposed to hedonic visual brand cues (participant C; D; F; I; M; O). When buying on impulse, participants stated that although they rationally decide not to make emotional decisions, sometimes impulsive buying appears to be coming from the “spur of the moment”, as participant D put it. These findings show a simultaneous activity of cognitive and emotional processes in decision-making influencing impulsive buying.

Two divergent and often conflicting discourses emerged during interviews: on the one hand participants appeared to enjoy indulging in impulsive decisions driven by their emotions, on the other hand participants seemed to regret losing rational control over their purchase behaviour and expressed the intention of exerting better control over future purchase behaviour. As participant A stated: “Don’t you believe that you can control yourself next time? Sometimes you just have to walk away!”. On the same note, participant B, argued that when people buy foods on impulse they feel “gratified but eventually it will not last long as impulsivity may drive you to buy things not needed”.

Among the reasons why emotional engagement appeared capable of affecting participants’ impulsive decisions during the shopping experience, it is possible noting the following: “emotions are hard to control” (participant A); “emotions drive more your impulse” (participant B); “instinct [drive impulsive purchases]” (participant C); “emotional is more fun and satisfaction” (participant H); “emotions prevail rationality” (participant M); “emotional is what we really want” (participant N); “[the desire to get something] is driven by emotions” (participant O); “Can you control it [rational control over emotions]?” (participant Q); “emotions make me feel connected to the product” (participant P); “[buying impulsively] brings up emotions” (participant H).

Following one’s instinct appears to be an important factor also in terms of affecting participants’ impulsive food choices when exposed to visual brand cues. Participant M, for example, suggested: “Follow your instinct sometimes, you will feel good!”. Participant G, for instance, argued that buying food impulsively is caused by “following her emotions”. In addition, participant I said that “the specific

emotion that you feel in that moment [while food shopping], either sadness or happiness, can impact impulsive food shopping". Furthermore, participant L stated: "To be honest I am much more emotional than rational!".

An interesting phenomenon that shows both facets of decision making, initially emotional and then rational, is described during observation by participant N. Specifically, this participant stated that once her attention is grabbed by exposure to hedonic visual brand cues, she usually puts foods impulsively in her basket but then when she needs to pay, she looks at the basket again and tries to rationalise the purchase. The same participant reported also that she normally goes back to the shelf, reflects on what she actually wants to buy, and gets rid of what she does not believe to be needed. Participant N stated that she believes to have found a strategy to minimise her impulsive decisions. The simultaneous presence of both behavioural dynamics in participants' purchase choices is exemplified also in the following quote from participant O:

Is probable that I will be even more conscious when I go food shopping now. It is not just about what I am buying, it will be about the whole process of buying it. Because I haven't actually thought about it too much, **it just happens**, and I just realise it is happening, but I haven't actually thought about it, so is good! It's good to see it from an outside perspective, even though it is still me, from an outside point of view, in a way! Because you do actually start thinking about that, never actually gone to a shop and thought **"You are actually buying it on impulse" - "You shouldn't" and then I do it anyway!**

On the whole participants appeared to agree that a combination of both facets of decision-making is acceptable while shopping. For example, participant A said: "It's okay to have a bit of both sides". Following one's instinct appears to be acceptable as long as it does not cause negative consequences. This point is supported also by participant C. The importance of having an equilibrium is also mentioned by participant F who stated: "I do understand the eyes want their share, but the brain should be used as well". Commenting on the same issue,



participant L said: “It is good to have a balance, following gut feeling, being emotional and buy just one thing that you like and you don’t really need”.

### 4.5.3 Rational impairment

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants’ decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Rational impairment	Inability to exert rational control over behaviour  Acknowledgement that rational control over behaviour can minimise impulsive food buying

Table 36: Rational impairment

During interview, a variety of perspectives were expressed concerning the reasons why participants appeared to buy foods without rationally processing their decisions after visual brand cues exposure. For example, participant A, when asked why consumers buy food without thinking, answered “maybe because you never take a shopping list with you!”. Similarly, she continued by saying that some people get carried away because “they are attracted by offers or items on display”. Having a shopping list is mentioned also by participant F and I as a strategy to reduce impulsive buying. On the same line of thinking, participant L argued that “not thinking about what to eat” can trigger impulsive food shopping. As participant I stated: “If don’t remember what to buy, it’s probable that I will buy something on impulse I don’t really need”. Talking about this issue, also participant M stated: “While buying on impulse I do not think too much about it!”.

Among other factors mentioned by participants as capable of affecting one's rational control over behaviour, it is worth noting busy schedules (participant O) or wanting something desperately (participant H). The ingredients used in the foods bought, and the overall idea of eating healthy foods, appear important and capable of increasing impulsive purchases. Participant M, for example, referring to the foods shown below bought impulsively, stated: "I relate these to healthy food, and I care about eating healthy foods".



Figure 86: Participant M – Rational impairment

Having a planned diet, on the other hand, appeared to decrease impulsive food shopping as stated by participant C and D. As participant D said: "Being rational is better to preserve your health". This point is reinforced also by participant E who suggested that thinking longer appears to be a way to increase rational control over behaviour. On the same line of argument, participant H indicated that the possible consequences of impulsive food shopping, materialised in her mind as a potential increase in body weight, tend to decrease her impulsive purchases. Specifically, she said: "This [healthy food choices] is fundamental to live longer and stronger and slimmer... and successful, because being healthy and slim and fit means being successful". Overall, although all the participants buy foods on impulse, there seems to be a general consensus that when rational control is exerted over behaviour, impulsive decisions can be minimised.

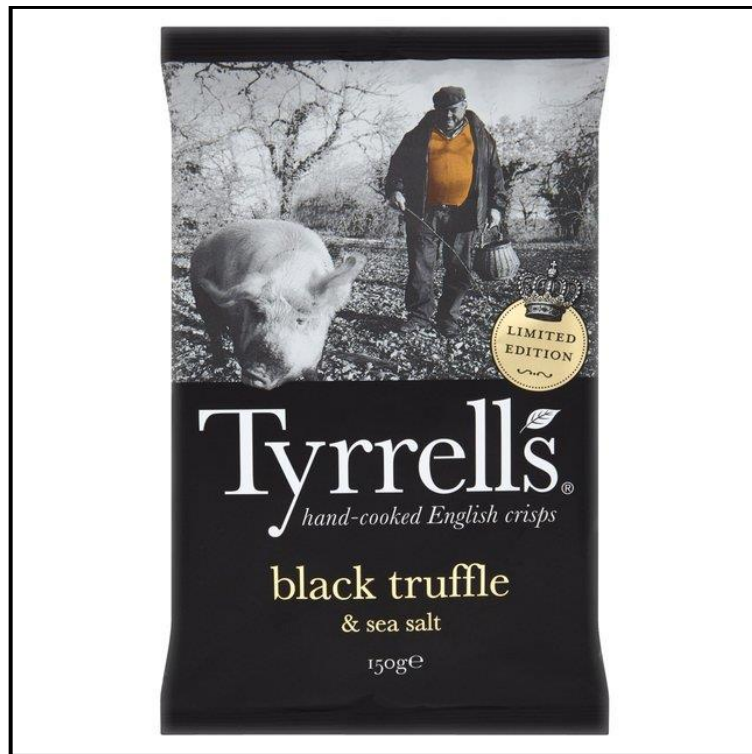


Figure 87: Participant E – Rational impairment

Participant H, on the same line of argument, stated that “having a closer look at the ingredients” may refrain her from buying food on impulse. In addition, participant E, creating a vignette with an imaginary conversation with Tyrrells (on the image above), stated: “[Tyrrells:] You know you want me!” [participant E:] “Yes, I know. But I just started with the gym again”. Furthermore, participant I, suggesting strategies to reduce impulsive purchases, said: “Try to think about what you really need in that moment, so you can reduce your impulse”. After reflection, and hence cognitively processing their choices, the majority of participants felt that they should not have bought those items on impulse because they did not really need them. For instance, participant Q admitted that there is less rational control over his behaviour and that that people do not always “walk the talk”.

#### 4.5.4 Reward seeking duality

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants' decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Reward seeking duality	Seek for instant gratification  Regret following impulsive food buying

Table 37: Reward seeking duality

During observation, it was suggested that impulsive buying is two-phased: first there appears to be a seek for instant gratification associated to impulsive purchases after visual brand cues exposure; then it is replaced by feelings of regret (participant B; C; E; H; I; L; M; N; O). Reward levels are high when buying something on impulse because it is usually something gratifying for participants, something that fulfils their desires. There is also a general consensus that acknowledges that food is chosen and eaten for pleasure rather than just for need satisfaction. This need for instant gratification seems to be important when buying foods on impulse. Even though buying on impulse is generally perceived in a negative light, participants feel like they deserve it (participant B; E; H; L; N; O). Participant N for example stated: "Today I'm doing it! I am aware that is bad but f\*ck it!". She described a feeling of happiness given by the new potential purchase then replaced by a feeling of reflection and guilt.

Also during interviews two divergent and often conflicting discourses emerged in relation to generalised and brand specific impulsivity as outcome of reward-seeking. If on the one hand participants felt authorised to treat themselves by purchasing impulsively gratifying and rewarding items, on the other there appears

to be a widespread awareness that negative consequences may follow. After reflection, for instance, participants realised the products bought on impulse may be too much and that they probably consume excessively for pleasure rather than because they need it (participant B; C; E; H; I; L; M; N; O). Nevertheless, there seems to be an acknowledgement amongst participants that although negative consequences may follow, impulsive purchases will be repeated. For instance, participant O, reflecting on her impulsive behaviour, stated: "It makes me laugh, I know I'll do it again!". The comment from participant O below also illustrates this point:

I'm not the kind of person who stops, I would just think about it until I haven't bought it, it would just be on my head. **And after I buy it, I would feel excited... There is a lot of excitement there... and then after I ate it, I would be like why? So much regret!** And this is the cycle, and after you feel this regret, and you feel stressed again, you want more. Pretty much. You go off and do the exact same thing.

One participant, interviewee I, for example, commented: "when I buy on impulse I feel happy because I bought the thing I want, but at the same time I know that I don't really need it. So, there are two mixed feelings here". Another interviewee, participant H, stating the first word that came to her mind by looking at one of the images brought at the interview, Nutella, alluded to the notion of reward (positive) and body weight (negative) by creating the following word pun: "SatisFATion". Other responses to this apparent coexisting dichotomy included: "me too [I feel excited when buying impulsively], but the high doesn't last long" (participant A); "I feel happy and sad [when buying impulsively]" (participant C); "I feel guilty and excited [when buying impulsively]" (participant H); "[buying impulsively make people feel] nostalgic, sometimes sad, or maybe happiness feelings" (participant G); "guilty but also gratified" (participant M); "happy and guilty soon" (participant N). In all the examples above, the constant battle between perceived rewards and losses appears to be represented by the coexisting duality of reward-seeking

behaviour and the acknowledgment that potentially negative consequences may follow impulsive food buying.

Concerns regarding the possible negative consequences that impulsive food shopping may bring to participants were expressed throughout the dataset. For example, one interviewee said: “Buy it now and then cry when you won’t be able to take the stairs to go up to the sixth floor”. Other two interviewees, when filling in a vignette saying “Buy now, think about it later!”, replied: “Well done, this is a great idea. I may do it with you!” (participant L) and “Most of the time I have the same motto” (participant F). The contrast between reward seeking behaviours and negative consequences can also be observed from the following quote of participant O who, referring to the images below brought at the interview as triggering her impulsivity, said:



Figure 88: Participant O – Reward seeking duality

This would be when you have too many assignments, or need a lot of energy, but then you realise that after you eat so much of this you would probably fall asleep because it spikes down. It's just like when you have a

lot on your mind and kind of want to think about something else. And it's bad, this is the bad stuff. **Really enjoyable for the first 10 minutes and then becomes horrible after. This is my... yeah, the guilty pleasure! There you go, that's the one.**

Other interviewees alluded to the notion of regret by stating: “Do you want to hear me complaining a lot for my actions later on [after buying impulsively]?” (participant M); “I won't [think much about it while buying impulsively]! The problem will come after” (participant N); “Exactly, you will have days, hours, minutes, to regret your choice. So enjoy it for now” (participant P). The discrepancy between positive reward and future negative consequences can be observed also in the following online conversation with participant L:



Figure 89: Participant L – Reward seeking duality

[Interviewee L] I went to buy just a couple of things, just a couple of things as you see from the picture, look at the picture! This is true impulsive behaviour!

[Interviewer] What led you to do so??

[Interviewee L] Just because I want everything, and if **I see something, I want it and then I regret it!**

#### 4.5.5 Guilt reducing strategies

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants' decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Guilt reducing strategies	Treating oneself Small Packaging Others doing the same Indulging in moderation

Table 38: Guilt reducing strategies

A variety of perspectives were expressed in relation to strategies used by participants to minimise guilt following impulsive purchases. Feeling like one deserves to indulge in an impulsive purchase appears to have the function to offer some form of justification of participants' impulsive buying. This theme came up for example in discussions with participant F who, speaking about one of her brands bought impulsively, stated: "I felt like I deserved it. If it doesn't become a habit, it's okay and it can be helpful". Similarly, participant E stated: "It is fine to reward yourself from time to time!". Talking about this issue, participant A mentioned financial capabilities and future behaviours aimed at compensating impulsive purchases by saying:

Maybe if I buy something impulsive one day, I try for a certain amount of time not to buy anything on impulse. **I try to space it up** maybe. Sometimes it works, sometimes it doesn't! (Laugh). In order to justify these to myself, **I find so many excuses**, like: "It's okay **I have enough money**"; "**I go to the gym next day**"; something like that. **I feel like I need to compensate somehow**, because **you feel like you have taken a step back**, you know,



or you have lost a few points on your driving licence! (laugh) so you need to do something to compensate for that.

Guilt reducing strategies are also inferable from the way in which participants addressed an imaginary situation in which a hypothetical character bought some food impulsively. Specifically, blank spaces were left for them to fill with the first sentence that came to their minds. Answers to this scenario included: “don’t think too much about it! Do you think it was worth the money?” (participant B); “don’t feel guilty!” (participant P); “it’s okay to treat yourself from time to time” (participant N); “you have definitely done the right buy” (participant M); “well done mate! Don’t be hard on yourself” (participant C); “you made the right decision” (participant D); “come on, it’s OK! There are other things to worry about in life” (participant E); “we all have those moments in life” (participant F); “people who shop food on impulse make me feel happy and supported to do as well” (participant H); “Ah... Just go to the gym tomorrow and it will be fine” (participant L); “don’t worry mate, just eat it and stop overthinking! Just enjoy yourself!” (participant M); “well, don’t worry, it’s fine this time. Life it’s too short” (participant N); “it makes me feel amused because I do it as well” (participant Q); “you only live once! You were so excited when you did it?” (participant O); “treat yourself and don’t feel guilty about it” (participant G). In all the examples above, participants appear to try to reduce feelings of guilt showing an active engagement in justifying impulsive decisions.

A similar pattern can be observed in participants E, O, and M, who, referring to the following visual images of brands brought at the interview, tried to reduce guilt by stating:

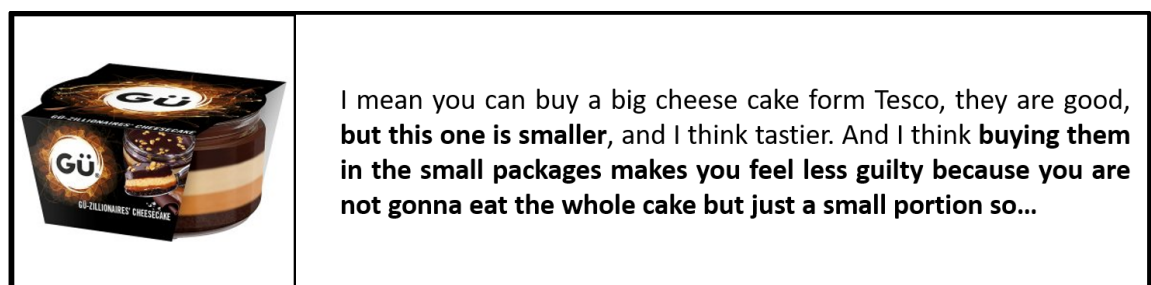
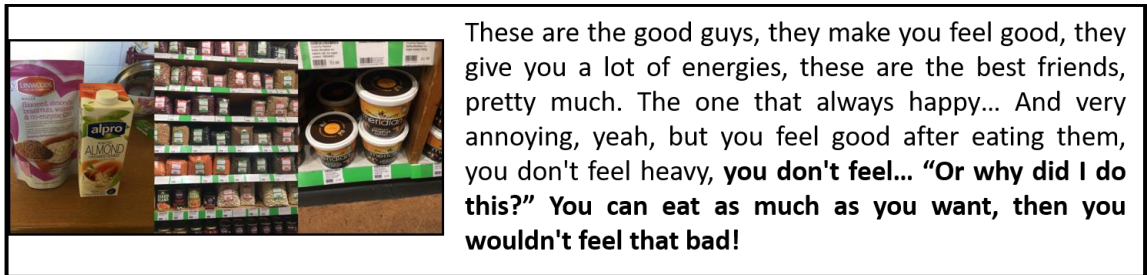
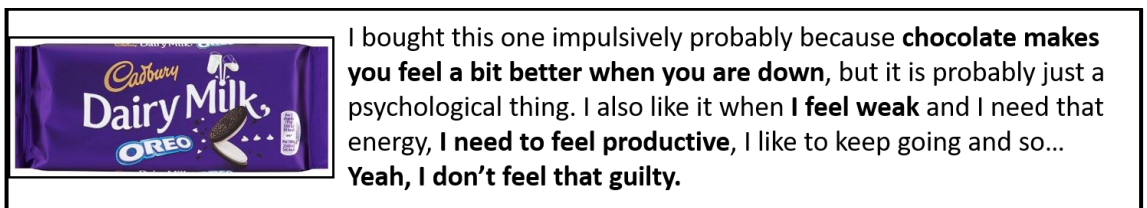


Figure 90: Figure 93: Participant E – Guilt reducing strategies



These are the good guys, they make you feel good, they give you a lot of energies, these are the best friends, pretty much. The one that always happy... And very annoying, yeah, but you feel good after eating them, you don't feel heavy, **you don't feel...** "Or why did I do this?" **You can eat as much as you want, then you wouldn't feel that bad!**

Figure 91: Participant O – Guilt reducing strategies



I bought this one impulsively probably because **chocolate makes you feel a bit better when you are down**, but it is probably just a psychological thing. I also like it when **I feel weak** and I need that energy, **I need to feel productive**, I like to keep going and so... **Yeah, I don't feel that guilty.**

Figure 92: Participant M – Guilt reducing strategies

The tendency to find justifications to reduce feelings of guilt emerges also from the following online conversation with participant I, who, remarkably addressing the researcher as "Father Ale", stated:

[Interviewee I] I'm in trouble, **Father Ale**: when I'm at uni, Twix are my go-to and I noticed that I buy them even if I would not. They're good and they satisfy my hunger. At home: I can't resist to eat small appealing snacks: if I see them, I eat two or three of them because I love them and they satisfy me.

Forgive me for my sins!!

[Interviewer] Thanks for sharing! Why do you define them as sins?

[Interviewee L] Well, usually I feel guilty cause I know that these foods aren't so good/healthy, **but sometimes I don't feel this way (for example when I studied hard and I consumed energy) I consumed = I can afford junk food!**

[Interviewer] A well-deserved reward?

[Interviewee L] Yes, more or less. When I study hard or I go to the gym, I feel less guilty for eating junk food, **cause I consumed energy** and I think

I can afford this kind of food. In other situations, I feel more guilty and also unhealthy.

#### 4.5.6 Compensatory consumption

Theme	Definition	Subtheme	Codes
Causal mechanism	Systems, processes and ways of acting related to participants' decision-making influenced by hedonic visual brand cues exposure and enhancing impulsive food buying.	Compensatory consumption	Negative events Stress Problems Sadness

Table 39: Compensatory consumption

During observation, it was suggested that buying food impulsively can be justified by participants if it compensates some negative events or moods affecting them (participant A; C; D; E; F; G; H; M; N; P; Q). Considering that food bought on impulse is mostly highly caloric, participants stated to feel guilty when indulging. As a result, they seem to find a justification of their impulsive behaviour through compensatory consumption mechanisms. Feeling stressed or particularly vulnerable, for example, appear to be factors that lead participants to compensate through impulsive food shopping (participant A; D; F; N). In addition, this impulsive aspect seems to be enhanced especially when participants have bad days and they try to compensate their emotional distress with food. As participant G stated in several occasions: "It was fine, it made me happy ... it comforted me because I was sad, this was a gift to myself ... life is only one!".

Even though buying on impulse is mainly seen under a negative light, participants stated that they feel like they deserve it in certain circumstances. For instance, as participant M said: "Sometimes it can be a physical need especially when [I

am] too tired after studying". Another participant alluded to the notion of reward by stating: "A lot of hard work requires reward" (participant E). During observation, participants, after visual brand cues exposure, demonstrated that they are generally happy to reward themselves when they perceive that they have earned it. Even though there is a constant element of guilt emerging from participants' words, it has to be weighed against the feeling of reward originating from the impulsive purchase. As participant P stated: "In the end it is okay as life is only one and needs to be fully lived".

Also during interviews, a common view amongst participants was that impulsive food shopping would allow them to 'compensate' for some negative events affecting their lives. These views surfaced mainly in relation to difficult days or periods, failures or general adverse conditions affecting their mood. Among the factors mentioned by participants, it is worth noting: "[those who buy impulsively] are not feeling all right" (participant C); "a failure" (participant Q); "I deserve it when I'm sad" (participant A); "personal problems" (participant D); "after I finish something difficult - like assessments" (participant E); "sadness" (participant P); "a bad experience" (participant G); "being unhappy" (participant N); "a breakup" (participant H); "when I'm sad" (participant Q); "disappointment" and "I felt like I deserved it because I was down" (participant I); "they don't receive enough compliments" (participant N); "sad events" (participant P); "food will fill the gap! [caused by sadness]" (participant O). Talking about this issue an interviewee, participant O, said:

So that's probably why there is a lot of anxiety. But then I think **that a lot of impulsive food shopping is about negativity, when you're stressed, when you are lonely**, especially if you live alone or try to live alone for the first time... Yeah, I see how people would think **that it would fill a hole**, and everything would be great! Just spice up your energy levels, I see what the whole thing's about.



Figure 93: Participant D – Compensatory consumption

On the same line of thinking, participant D, referring to the images presented above, stated: “Comfort food! Suitable when you're down. I just noticed that comfort food is fat food or junk food, unhealthy. However, if you eat some of these just sometimes is not too bad”. This view was echoed by another informant, participant B, who stated:

I also think that personality traits and **personal problems** of people can have an impact on the choices we make. For example, **when I am more down I'm prone to buy chocolate or junk food**. I think it also depends on hormones, there may be a medical explanation, maybe our brain needs more calories or different substances. I buy stuff on impulse like chocolate, desserts, biscuits... And **it happens when I feel down or when I feel tired or when I'm not so satisfied about something** and so you need something to cheer you up.



Figure 94: Participant M – Compensatory consumption

Similarly, participant M, referring to the images presented above, argued: “This is my impulsive purchases because I do not normally buy them but just sometimes when I need to reward myself or I had a bad day, sad, stressed or something. Like I don’t think and buy this”. Studying long hours also appears to be considered as a factor triggering compensatory consumption. As one interviewee put it: “Me too [I buy on impulse]. Particularly when I feel down or study, I buy chocolates because it gives me energies and makes me feel happier” (participant M). Another interviewee, participant I, speaking about her studying habits, suggested: “This is ‘study food’ [crisps] because when I’m studying I’m always hungry and I want crisps, so it’s a really rewarding food for me”.

#### 4.6 Summary

In summary, this chapter has shown the findings of this research obtained through the adopted triangulated multi-method qualitative approach: observation of purchase behaviour, semi-structured interviews aided by photo elicitation and projective techniques and participants’ driven diaries via social media. As a result of the analysis, several causal factors and mechanisms have been identified and explored. The following chapter summarises the findings of this investigation in a theoretical framework and provides a discussion and explanation of the identified causal factors and mechanisms.

## 5 Discussion

The aim of this chapter is to discuss the causal factors and mechanisms enhancing Generation Z's impulsive food buying after exposure to visual hedonic brand cues. As shown in the conceptual framework below, a first distinction made to identify the causes of participants' impulsivity is between causal factors (i.e. entities) and mechanisms (i.e. processes). While causal factors, both external and internal, have a clear influence over participants' impulsivity, causal mechanisms are more complex as multiple processes appear to take place simultaneously. The identification of mechanisms affecting consumer choice is consistent with recent literature investigating impulsive behaviour (Chan et al., 2017; Ding & Tseng, 2015; Fenton-O'Creevy et al., 2018; Fiore & Kim, 2007; Hofmann et al., 2008; Koles et al., 2018; Lieven et al., 2015; Reimann et al., 2012; Tifferet & Vilnai-Yavetz, 2017; Vieira et al., 2018; Vonkeman et al., 2017; Xiao & Nicholson, 2013).

Although it is not possible to establish a relationship between causal factors and mechanisms, the results of this study indicate that their combined influence contributes to enhance impulsive food buying. While the identification of the causal factors and mechanisms influencing impulsive food buying provides the answer to the first research question of this investigation, the examination of the causal factors and mechanisms enables the understanding of 'how' this process develops, addressing the second research question of this study (Figure 6). Moreover, the answer to the last research question, which focuses on 'why' the identified causal factors and mechanisms have this influence on participants' impulsive food buying, is offered throughout this chapter by providing a theoretical understanding focused on explanation.

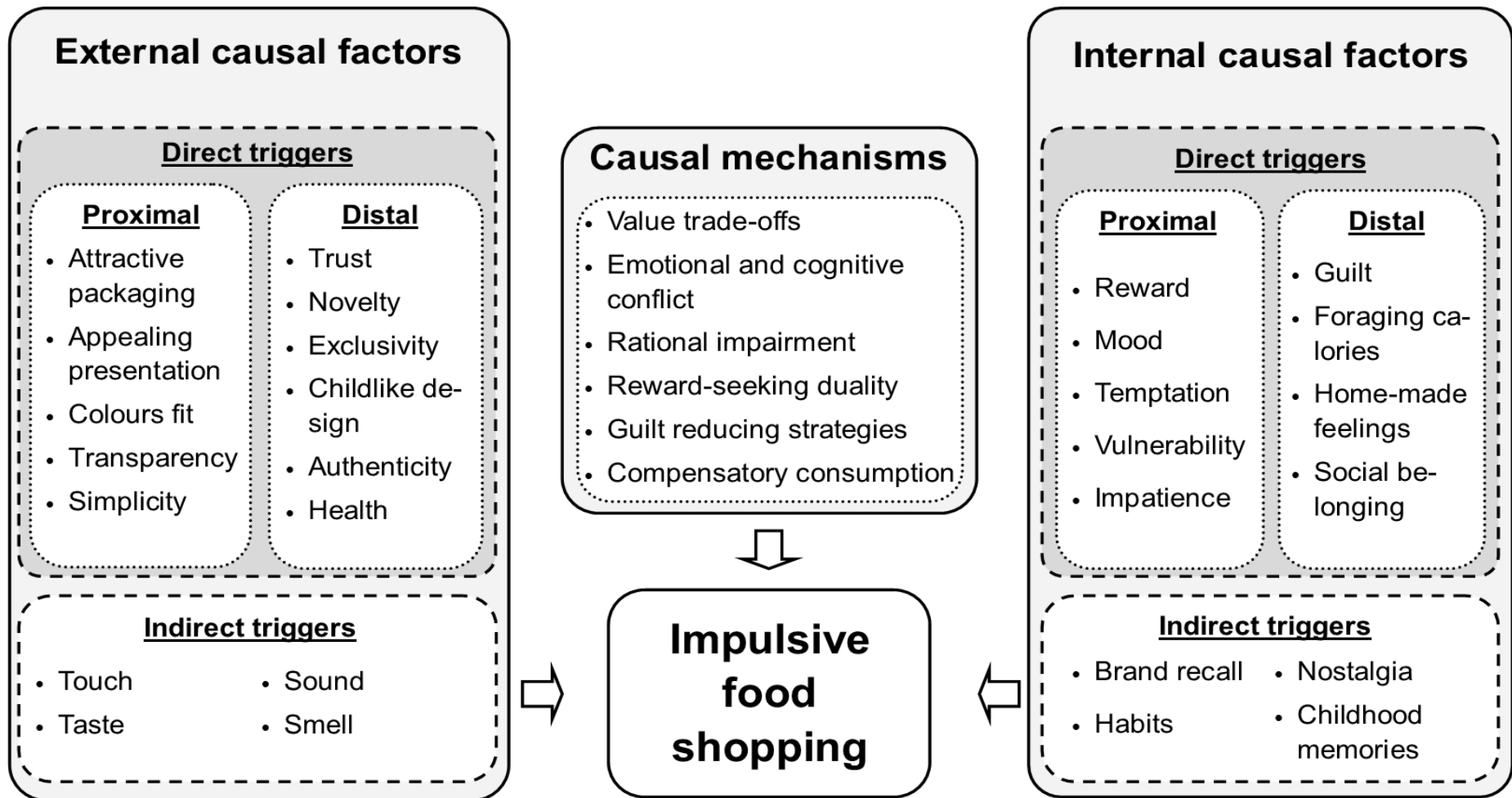


Figure 95: Causal factors and mechanisms influencing Generation Z's impulsive food shopping



As shown in the conceptual framework above, the causal factors affecting participants' impulsivity have been categorised according to several criteria: external and internal; direct and indirect; proximal and distal. The identification of "internal (related to personal characteristics) and external (related to situational – store and product – characteristics)" (Santini et al., 2019) factors affecting consumer impulsivity has received significant attention in the literature (Aragoncillo & Orús, 2018; Bahrainizad & Rajabi, 2018; Chan, Cheung, & Lee, 2017; Chang et al., 2011; Floh & Madlberger, 2013; Hultén et al., 2013; Xiao & Nicholson, 2013; Zhang, Xu, Zhao, & Yu, 2018; Zheng et al., 2019). Although both categories emerged when participants were exposed to hedonic visual brand cues, external factors are found in the shopping environment while internal factors arise from within participants.

A further categorisation found in the literature and adopted in this research distinguishes between direct triggers (i.e. directly triggering participants' impulsivity) and indirect triggers (i.e. triggering participants' impulsivity indirectly) (Bahrainizad & Rajabi, 2018; Chan et al., 2017; Chang et al., 2011; Fenton-O'Creevy, Dibb, & Furnham, 2018; Floh & Madlberger, 2013; Hultén et al., 2013; Lucas & Koff, 2017; Vieira, Santini, & Araujo, 2018; Vonkeman, Verhagen, & van Dolen, 2017; Xiao & Nicholson, 2013; Zheng, Men, Yang, & Gong, 2019). Although both direct and indirect triggers affect participants' impulsive food shopping in this study, direct triggers have an apparent influence over participants' impulsivity, while indirect triggers are mediated by, or interacting with, direct triggers.

Finally, direct triggers have been divided in proximal (i.e. easily occurring to participants) and distal (i.e. requiring elicitation and probing). Although this dichotomy can be found in the literature (Boyer & Barrett, 2015; Cohen & Bernard, 2013; Schultz, 2015), in this research it is adopted in order to determine the level of participants' conscious awareness (Fiore & Kim, 2007; Garg & Lerner, 2013; Koles et al., 2018; Murawski et al., 2012; Plassmann et al., 2012; Reimann et al., 2012; Santini et al., 2019; So et al., 2015; Xiao & Nicholson, 2013). Even if both

categories have an equivalent impact on participants' food shopping impulsivity, proximal triggers are consciously accessible by participants, while distal triggers emerged after further elicitation.

## **5.1 External direct triggers**

The results of this study indicate that several external direct triggers have the tendency to impact participants' impulsive buying (Aragoncillo & Orús, 2018; Bahrainizad & Rajabi, 2018; Chan, Cheung, & Lee, 2017; Zhang, Xu, Zhao, & Yu, 2018; Zheng et al., 2019). External factors are those stimuli that are found in the shopping environment (e.g. "related to situational – store and product – characteristics") (Santini et al., 2019). Direct triggers are those factors that directly trigger participants' impulsivity (i.e. are not mediated by or do not interact with other stimuli) and have acquired a prominent role in the literature (Bahrainizad & Rajabi, 2018; Chan et al., 2017; Fenton-O'Creevy, Dibb, & Furnham, 2018; Lucas & Koff, 2017; Vieira, Santini, & Araujo, 2018; Vonkeman, Verhagen, & van Dolen, 2017; Xiao & Nicholson, 2013; Zheng, Men, Yang, & Gong, 2019). Finally, this study distinguishes between proximate triggers and distal triggers. The former emerged naturally during data collection (i.e. they were consciously accessible by participants), while the latter required probing and elicitation to be detected (i.e. they appeared less consciously accessible) (Koles et al., 2018; So et al., 2015; Vieira et al., 2018; Xiao & Nicholson, 2013).

As shown in the table below, hedonic visual brand cues related to attractive packaging; appealing presentation; colours fit; transparency and simplicity have been categorised as proximate external direct triggers of participants' impulsivity. On the other hand, hedonic visual brand cues symbolising trust; novelty; exclusivity; childlike design; authenticity and health have been categorised as distal external direct triggers of participants' impulsivity. As a result, the present study raises the possibility that participants' impulsive buying can be altered by exposure to hedonic visual brand cues and that the abovementioned factors may act as external direct triggers of participants' food-shopping impulsivity.

External direct triggers	
Proximal	Distal
<ul style="list-style-type: none"> <li>• Attractive packaging</li> <li>• Appealing presentation</li> <li>• Colours fit</li> <li>• Transparency</li> <li>• Simplicity</li> </ul>	<ul style="list-style-type: none"> <li>• Trust</li> <li>• Novelty</li> <li>• Exclusivity</li> <li>• Childlike design</li> <li>• Authenticity</li> <li>• Health</li> </ul>

Table 40: External direct triggers

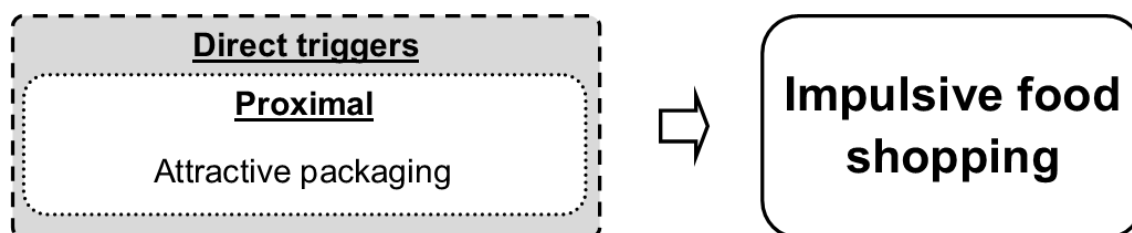


Figure 96: Attractive packaging – external direct trigger

The findings of this study indicate that attractive food packaging may play a role within participants' impulsive decisions. These results appear coherent with prior studies that have noted the importance of packaging within consumers' decision making (Bahrainizad & Rajabi, 2018; Hsu & Yoon, 2015; Hultén & Vanyushyn, 2011; Hultén et al., 2013; Oliveira et al., 2014). Nevertheless, this study further highlights the role of attractive food packaging for Generation Z within the food domain.

The findings of this study indicate that hedonic visual brand cues have the ability to influence participants' preferences, which in turn appear capable of triggering their impulsivity (Floh & Madlberger, 2013; Hausman, 2000). An explanation for these results may be the lack of adequate processing power consumers have when making decisions, and the consequent reliance on cues, or bits of information, to facilitate it (Bahrainizad & Rajabi, 2018; Dawson & Kim, 2010; Fiore & Kim, 2013; Hofmann et al., 2008; Tetley et al., 2010).

The results of this study show that attractive food packaging, and related associations in participants' minds such as perceived brand quality, may play a role within generation Z's impulsive decisions. An explanation for this might be that consumers, including Generation Z, are becoming increasingly sophisticated and rely on the elicited brand associations to make purchase decisions (Berridge et al., 2009; Ding & Tseng, 2015; Esch et al., 2012). As a result, the findings of this study suggest that attractive visual brand cues on food packaging have the ability to elicit positive consumers' associations which, in turn, may act as external direct triggers of Generation Z's impulsive food buying.

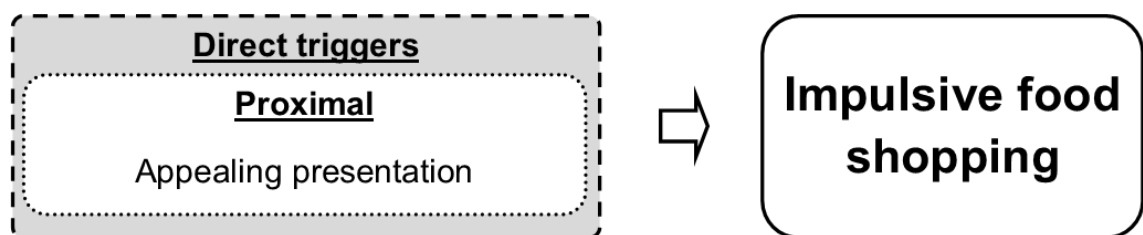


Figure 97: Appealing presentation – external direct trigger

In this study, hedonic visual brand cues that remind participants of both appealing food-shopping environments and appealing presentation of products in the supermarket shelves were found to trigger their impulsivity. These findings accord with earlier observations, which showed that atmospheric cues in the shopping environment can interact with consumers' decision making (Chang et al., 2011; Flamand, Ghoniem, & Maddah, 2016; Floh & Madlberger, 2013; Hausman, 2000; Ladhari et al., 2017; Park, 2006; Santini et al., 2019). These results, however,

strengthen the role of hedonic visual brand cues in this category in enhancing participants' impulsive purchases in the food domain.

Appealing presentation of products appears linked to positive participants' responses which, in turn, seems to play a role within their impulsive purchase behaviour. Taken together, these results suggest that there is an association between exposure to these atmospheric cues and increased participants' impulsivity (Chang et al., 2011; Prashar et al., 2015). An explanation for these results may be the innate consumers' need to look for and obtain food, conceptualised in the literature as foraging theory (Cohen & Bernard, 2013; Saad, 2013; Wells, 2012). These findings consequently suggest that hedonic visual brand cues signalling appealing food presentation may behave as external direct triggers of Generation Z's impulsive food shopping.

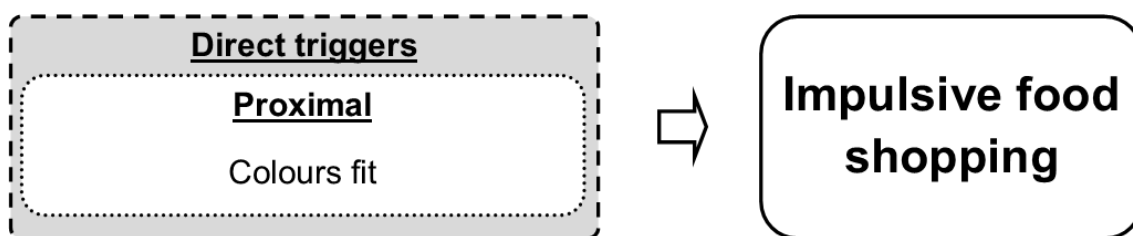


Figure 98: Colours fit – external direct trigger

The results of this study indicate that the colours used in packaging are capable of affecting participants' impulsivity. Specifically, two discrete broad categories aligned with the types of food bought emerged from the analysis: healthy foods (requiring transparent packaging or pastel colours to trigger impulsivity) and unhealthy foods (requiring brighter colours to trigger impulsivity). These findings support the work of other studies in this area indicating the role of colours within consumers' shopping behaviour (Bahrainizad & Rajabi, 2018; Chang et al., 2011; Coulter et al., 2001; Ding & Tseng, 2015; Floh & Madlberger, 2013; Krishna, 2012; Ladhari et al., 2017; Strack & Deutsch, 2004). Nevertheless, these results

further stress the influence of colourful visual brand cues on Generation Z's impulsive behaviour in the food domain.

The findings of this study suggest that there is an association between the colours used as visual brand cues and participants' impulsivity. Specifically, healthy foods appear to require pastel colours to trigger participants' impulsivity while unhealthy foods seem to necessitate brighter colours to trigger participants' impulsivity. Overall, in this study there is a fit between the category of food bought and the colours used (Fiore & Kim, 2007; Hausman, 2000; Ladhari et al., 2017), which in this research also plays a significant role within participants' impulsive decisions. An explanation for this might be that consumers' impulsivity is enhanced by their need for congruency (Ladhari et al., 2017; Palazon & Delgado-Ballester, 2013; Reimann et al., 2012; Tuan Pham, 2004). Hence, it can be suggested that visual brand cues congruent with consumers' colours expectations may be considered as external direct triggers of Generation Z's impulsive food buying.

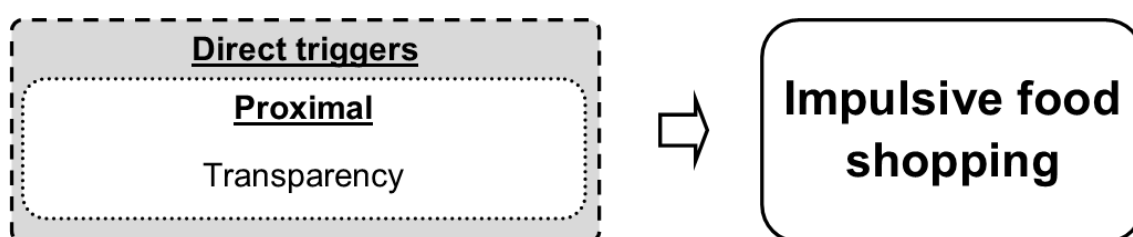


Figure 99: Transparency – external direct trigger

The results of this study indicate that participants' impulsivity can be triggered by transparent packaging. In accordance with the present findings, previous studies have demonstrated similar results (Bahrainizad & Rajabi, 2018; Berger & Shiv, 2011; Hansen, 2005; So et al., 2015; Zellman et al., 2010). In contrast to earlier findings, however, this study highlights the importance of transparent packaging within Generation Z's impulsive food shopping.

The findings of this study suggest that there is an association between transparent packaging, and specifically the ability to “see inside”, and impulsive purchases. This study supports evidence from previous observations highlighting the reliance of consumers on cues to make purchase decisions (Berger & Shiv, 2011; Hansen, 2005; So et al., 2015; Zellman et al., 2010). Nevertheless, the findings of this study further emphasise the role of transparent packaging within participants’ impulsive decisions in the food domain. It seems likely that these results are due to an enhanced consumers’ ability to evaluate the content of the food bought when the packaging is transparent (Anselmsson et al., 2014; Tetley et al., 2010). Therefore, it can be suggested that the use of transparent packaging as a visual cue may be categorised as an external direct trigger of Generation Z’s impulsive food shopping.

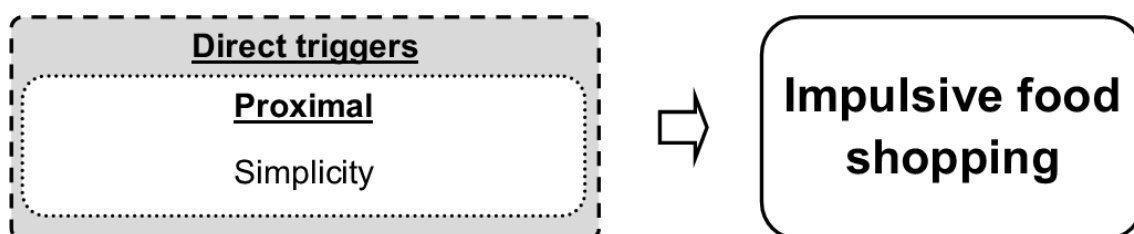


Figure 100: Simplicity – external direct trigger

The results of this study show that hedonic visual brand cues that appear simple are capable of triggering participants’ impulsivity. These results corroborate the findings from previous observations stating that perceived simplicity evokes positive responses (Boyer & Barrett, 2005; Griskevicius & Kenrick, 2013; Sebastiani & Montagnini, 2013). An explanation for these results may be that visual cues that symbolise simplicity appear to be attracting participants’ attention (Hsu & Yoon, 2015). Nevertheless, these findings are contrary to previous studies which have suggested that complexity positively affect consumers’ responses (Knoeferle et al., 2017; Murawski et al., 2012; Petermans et al., 2014).

It seems possible that these results are due to an association in participants’ mind between perceived quality and simplicity (Alba & Williams, 2013; Griskevicius &

Kenrick, 2013). This seems to be consistent with other research (e.g. Boyer & Barrett, 2005; Griskevicius & Kenrick, 2013; Sebastiani & Montagnini, 2013) but further establishes a causal link between exposure to these cues and increased participants' impulsivity in the food domain. An explanation of these results may be that "simple" visual brand cues could decrease consumers' confusion (Boyd & Bahn, 2009). According to these data, it is then possible to infer that "simple" visual brand cues may be categorised as external direct triggers of Generation Z's impulsive food buying.

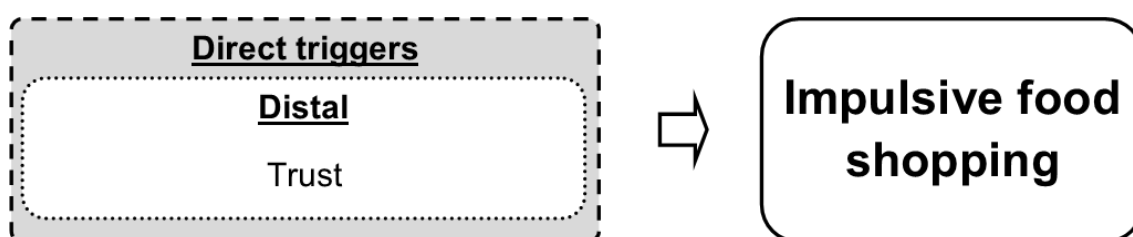


Figure 101: Trust – external direct trigger

The findings of this study support the idea that hedonic visual brand cues that transmit trust to participants enhance their impulsive purchases. As mentioned in the literature review, visual stimuli have an important role in triggering consumers' impulsivity (Krishna, 2012; Plassmann et al., 2012; Reimann et al., 2012). Previous studies have also explored the relationships between trust and positive consumers' responses (Coulter et al., 2001; Reimann et al., 2012; Saad, 2013; Shi et al., 2018). However, the findings of the current study highlight the importance of visual brand cues eliciting trust for Generation Z when purchasing food impulsively.

The results of this study indicate that trust appears linked to positive participants' responses which, in turn, seems to play a role within their impulsive decisions when food shopping. In the narrative created by participant H, for example, the battle between trustable entities (represented by the Innocent brand) and untrustworthy ones (represented by the Coca Cola plant) is ultimately won by the former, showing that trust matters. Considering that trust had a significant



evolutionary purpose (Buss, 2015), an explanation for this might be that consumers are more vulnerable to brands they trust (Griskevicius & Kenrick, 2013; Reimann et al., 2012; Saad, 2013). It can therefore be suggested that visual brand cues that elicit trust may be categorised as external direct triggers of Generation Z's impulsive buying in the food domain.

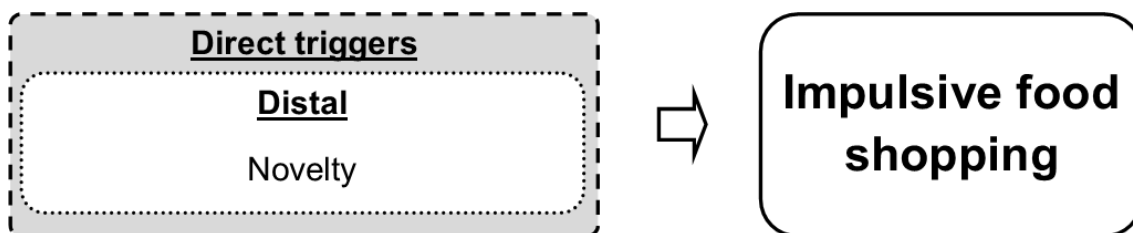


Figure 102: Novelty – external direct trigger

The results of this study show that participants' impulsivity can be triggered by hedonic visual brand cues that evoke feelings of novelty. These results corroborate the findings of a great deal of the previous work establishing a link between consumers' motivation and the pursuit of novelty (Alba & Williams, 2013; Fiore & Kim, 2013; Griskevicius & Kenrick, 2013; Hausman, 2000; Park, 2006; Plassmann et al., 2012; Reimann et al., 2012; So et al., 2015; Xiao & Nicholson, 2013). These findings, however, are contrary to previous studies which have suggested that familiarity and habitual purchases have a positive influence on consumers' responses (Bredahl, 2004; Bruce et al., 2014; Hultén & Vanyushyn, 2011; Kim et al., 2016; Martin & Morich, 2011).

Taken together, these results suggest that there is an association between hedonic visual brand cues that evoke feelings of novelty and increased participant's impulsivity. Based on the findings, it can be suggested that these results are due to the rewarding and motivational properties of visual brand cues that evoke feelings of novelty (Plassmann et al., 2012; So et al., 2015). These relationships may partly be explained by the novelty seeking characteristics of Generation Z (Bassiouni & Hackley, 2014; Priporas et al., 2017; Schlossberg, 2017). It is possible, therefore, that visual brand cues in this category may be considered as external direct triggers of Generation Z's impulsive food buying.

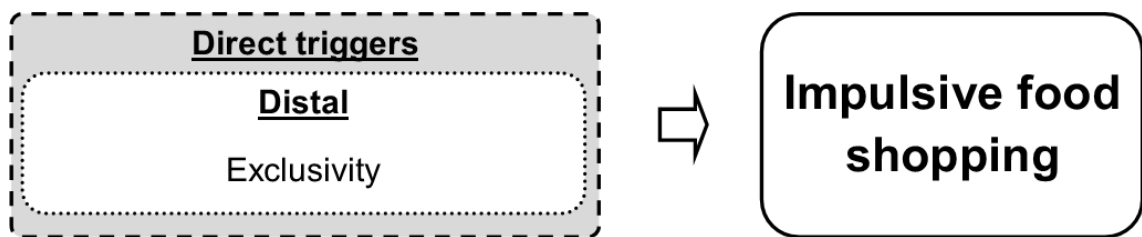


Figure 103: Exclusivity – external direct trigger

In this study, visual brand cues that symbolise exclusivity, often also referred as sophistication and elegance, were found to trigger participants' impulsivity. There was a sense amongst participants that visual brand cues that transmitted the abovementioned characteristic of exclusivity triggered their impulsive purchases, as by purchasing the brands endorsing them, they could buy into those values as well. In accordance with the present results, previous studies have demonstrated that feelings of sophistication, exclusivity and elegance have a positive influence on consumers' responses (Hume & Mills, 2013; Krishna, 2012; Ladhari et al., 2017). However, these results further highlight the purpose of these visual brand cues within Generation Z's impulsive decisions in the food domain. An explanation for these results may be that by purchasing impulsively the brands that employ exclusive visual cues, participants may be able to buy into the related elegant, sophisticated and exclusive lifestyles (Hume & Mills, 2013; Reimann et al., 2012).

Furthermore, in all the examples in which participants personified the brands they purchased impulsively, visual brand cues related to exclusivity, elegance and sophistication appear linked to positive participants' responses which, in turn, seems to play a role within their impulsive decisions when food shopping. In accordance with the present results, previous studies have demonstrated that consumption of brands can fill the gap between consumers' actual selves and ideal selves by bridging the two (Fiore & Kim, 2007; Hume & Mills, 2013; Reimann et al., 2012; Xiao & Nicholson, 2013). These results are consistent with previous observations but further stress this relationship within Generation Z's impulsive food shopping. An explanation for this might be that the reward originated from

idealising one's ideal self is capable of affecting their impulsivity towards the origin of that reward (Chang et al., 2011; Hsu & Yoon, 2015; Schaefer & Rotte, 2007a). According to these data, it is then possible to infer that visual brand cues that belong to this category may act as external direct triggers of Generation Z's impulsive food buying.

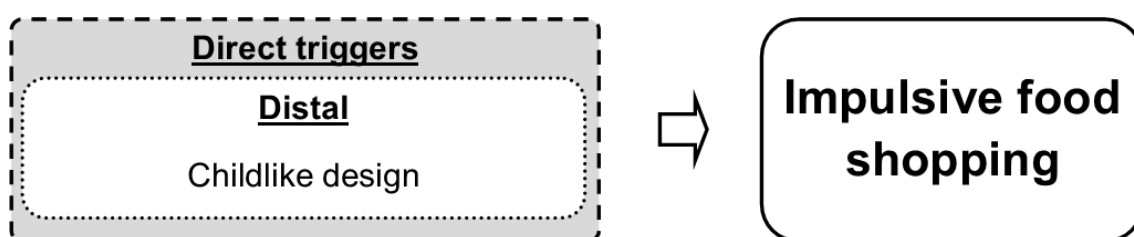


Figure 104: Childlike design – external direct trigger

The current study found that visual brand cues related to “childlike design and playfulness” (i.e. as if they were drawn by a child) are capable of triggering participants' impulsive behaviour. These findings are in accord with studies indicating a relationship between positive consumers' responses and exposure to visual cues in this domain (Almerico, 2014; Ding & Tseng, 2015; Fischer & Hills, 2012; Miesler et al., 2011; Saad, 2013). This relationship may be explained by the reward triggering and motivational properties of visual cues related to childlike design and playfulness (Aharon et al., 2001; Alba & Williams, 2013; Berridge et al., 2009; Murawski et al., 2012). Nonetheless, these findings reinforce the link between exposure to visual brand cues in this category and Generation Z's impulsive food shopping.

Taken together, these results suggest that there is an association between exposure to visual brand cues in this domain and elicited feelings of nostalgia, which in turn appears to attract participants' attention leading to impulsive food buying. An explanation for these results may be related to the attention grabbing properties of visual cues eliciting nostalgia (Alba & Williams, 2013; Fiore & Kim, 2007) and to the motivational properties of childhood memories and nostalgia

(Bruce et al., 2014; Hemar-Nicolas et al., 2013; Higgins, 2006; Spear, 2011; Strack & Deutsch, 2004). Therefore, it can be suggested that visual brand cues related to “childlike design and playfulness” may be categorised as external direct triggers of Generation Z’s impulsive food buying.

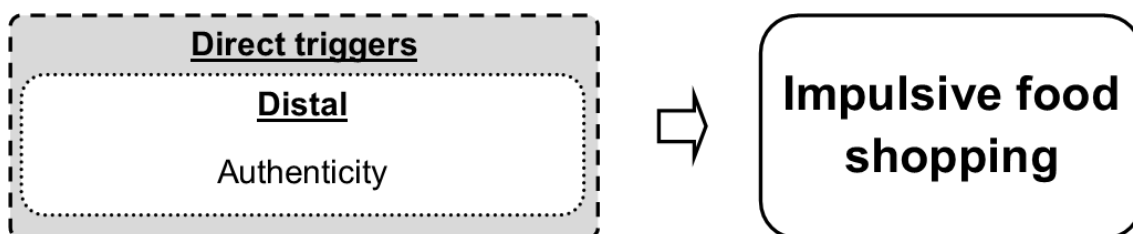


Figure 105: Authenticity – external direct trigger

The findings of this study support the idea that visual brand cues that transmit authentic feelings to participants are capable of enhancing their impulsive purchases. These results seem consistent with other research which found a link between perceived consumers’ authenticity and tradition and positive consumers’ responses (Alba & Williams, 2013; Almerico, 2014; Burnett & Hutton, 2007; O’Guinn, 2001; Sebastiani & Montagnini, 2013). This research, however, further emphasises the role of these visual brand cues within Generation Z’s impulsive food shopping. This result may be explained by the fact that “Generation Z appreciate authenticity and look for products that help them express their individuality” (Euromonitor International, 2020, p. 17).

In accordance with the present results, previous studies have demonstrated the importance of perceived authenticity on positive consumers’ responses (Alba & Williams, 2013; Burnett & Hutton, 2007; So et al., 2015). There are several possible explanations for this result. For instance, it is possible that consumers’ innate need to belong (Alba & Williams, 2013; Saad, 2013) is positively reinforced by visual brand cues highlighting the authenticity and tradition of the brand. Another possible explanation is that visual images in this domain emphasise the perceived quality of the products associated to the respective brands (Anselmsson et al., 2014; Richardson et al., 1994). Based on these

findings, it can be suggested that visual brand cues in this domain may be categorisable as external direct triggers of Generation Z's impulsive food buying.

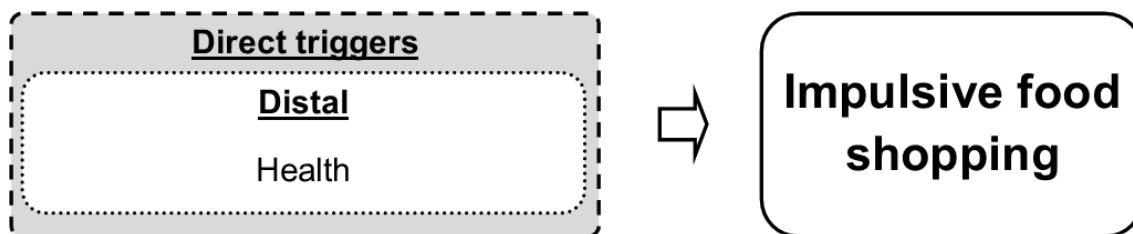


Figure 106: Health – external direct trigger

The results of this study suggest that there is an association between healthy foods, or visual cues representing health, and participants' impulsive food-shopping. In accordance with the present results, previous studies have demonstrated the importance of healthy food, or achieving good health through food consumption, on a cognitive dimension of decision-making (Shiv & Fedorikhin, 1999; Simmank et al., 2015; So et al., 2015; Tetley et al., 2010). This finding, however, is contrary to previous studies which have underlined consumers' preferences for unhealthy foods (Garg & Lerner, 2013; Saad, 2013; Simmank et al., 2015). Nonetheless, the evidence from this research highlights the importance of visual brand cues symbolising health for Generation Z when purchasing food impulsively.

Taken together, these results suggest that exposure to health-related visual brand cues appear linked to positive participants' responses which, in turn, seem to play a role within their impulsive decisions when food shopping (Hansen, 2005; Krishna, 2012; Tetley et al., 2010). An explanation for these results may be the reduction in cognitive dissonance caused by health related cues (Higgins, 2006; Shiv, 2007; Xiao & Nicholson, 2013; Yates, 2007). Therefore, it can be suggested that health-related visual brand cues may act as external direct triggers of Generation Z's impulsivity in the food domain.

## 5.2 External indirect triggers

The results of this study indicate that brand cues found in the shopping environment (i.e. external) perceived by other senses (touch, taste, sound and smell), when elicited by, or interacting with, visual brand cues, were capable of affecting participants' impulsive purchases. The mediating effect of certain factors on consumer behaviour has achieved significant interest in the literature (Bahrainizad & Rajabi, 2018; Chan et al., 2017; Fenton-O'Creevy, Dibb, & Furnham, 2018; Lucas & Koff, 2017; Vieira, Santini, & Araujo, 2018; Vonkeman, Verhagen, & van Dolen, 2017; Zheng, Men, Yang, & Gong, 2019). As a result, brand cues related to touch, taste, smell and sound have been categorised as indirect triggers (external) of participants' impulsivity in this study.

<b>External indirect triggers</b>	
• Touch	• Sound
• Taste	• Smell

Table 41: External indirect triggers

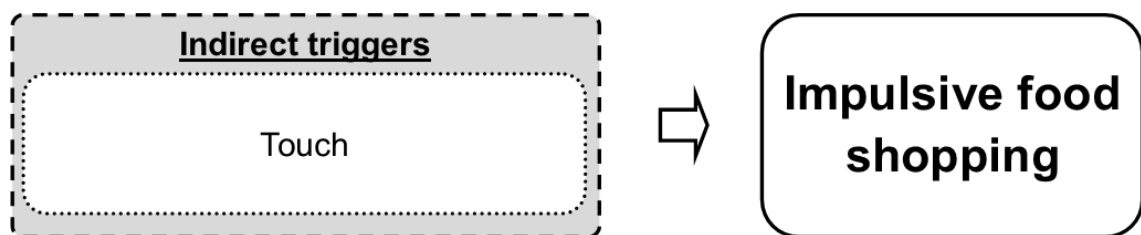


Figure 107: Touch – external indirect trigger

The results of this study suggest that there is an association between enhanced participants' impulsivity and the ability to touch, or imagine the texture of, the desired food brand. This study supports evidence from previous research (Festjens et al., 2014; Peck & Childers, 2006; Childers, 2003; Peck & Wiggins,

2006; Soars, 2009). In contrast to earlier findings, however, this study further supports the role of touch within Generation Z's impulsive food shopping. This relationship may be explained by the innate consumers' need for touch (Alba & Williams, 2013; Hultén, 2012; Peck & Childers, 2006; Tifferet & Herstein, 2012; Wiggins, 2006).

Taken together, these results suggest that there is a relation between Generation Z's need for touch and increased impulsivity when food shopping. Specifically, it appears that the sense of touch interacts with the other senses to magnify participants' engagement with the shopping experience which, in turn, appears to enhance impulsivity. As mentioned in the literature review, an explanation for this might be that touch had such a significant role both in evolutionary and developmental terms (Buss, 2015; Krishna, 2012). Furthermore, the ability to touch appears to enhance consumers' vulnerability (Fiore & Kim, 2013; Hultén, 2012; Soars, 2009). One of the issues that emerges from these findings is then that brand cues in this domain, when interacting with relevant visual brand cues, may act as external indirect triggers of Generation Z's impulsivity in the food domain.

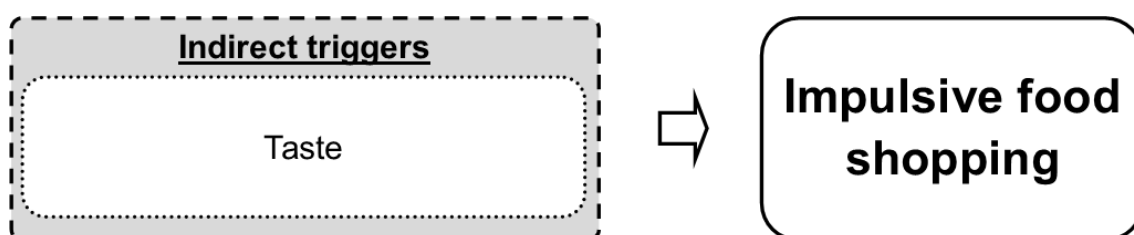


Figure 108: Taste – external indirect trigger

The current study found that the way in which food tastes, or its memory elicited by the related visual cue, appear to trigger their impulsive buying. These results are in line with those of previous studies (Alba & Williams, 2013; Festjens et al., 2014; Krishna, 2012; Plassmann et al., 2012; Strack & Deutsch, 2004). Nonetheless, these results further support the idea of a link between exposure to visual cues reminding participants of the taste of the food and enhanced

willingness to buy those food brands impulsively. It seems likely that these results are due to the meaningful impact of taste, or memory of, on the affective aspect of consumers' decision-making (Alba & Williams, 2013; Hofmann et al., 2008; Krishna, 2012; Schultz, 2015).

The results of this study indicate that the way in which participants recall the taste of food brands in their memory has an influence on their impulsive food shopping. This relationships may be explained by the 'ultimate' and 'proximate' hedonic responses (section 2.1.6.1) related to exposure to a powerful reward such as food (Simmons et al., 2005). Specifically, participants may be able to transfer the rewarding properties associated to taste to the related visual brand cue(s) (Tetley et al., 2010; Volkow et al., 2011). As a result, these findings suggest that taste related brand cues, when accompanied by associated visual cues, may be categorised as external indirect triggers of Generation Z's impulsive food buying.

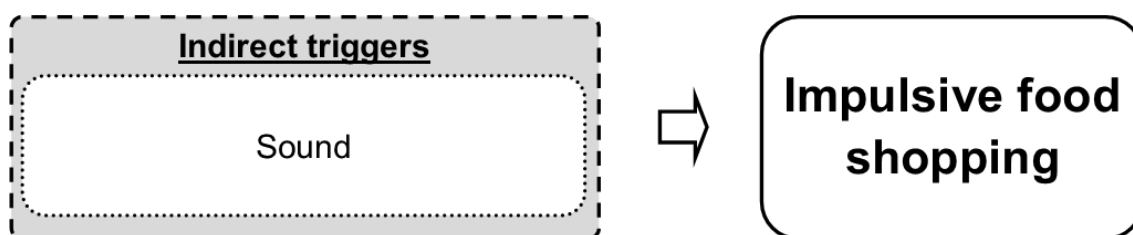


Figure 109: Sound – external indirect trigger

The results of this study show that there is a relationship between auditory cues and increased impulsivity (Krishna, 2012; Soars, 2009; Strack & Deutsch, 2004; Xiao & Nicholson, 2013; Yorkston & Menon, 2004). Overall, it appears that auditory cues interact with the other senses to amplify participants' impulsivity when food shopping. These results support evidence from previous observations (Aragoncillo & Orus, 2018; North et al., 1999; Zampini & Spence, 2005). However, the findings of the current study further highlight the role that auditory cues may have on Generation Z's impulsive food shopping.



Taken together, the results of this study show that there is a relationship between auditory cues, either in the shopping environment or elicited by the related visual brand cue, and increased impulsivity. Nevertheless, the levels observed in this investigation are far below those found in the literature (Krishna, 2012; Soars, 2009; Strack & Deutsch, 2004; Xiao & Nicholson, 2013; Yorkston & Menon, 2004). This discrepancy could be attributed to the focus of this study on the visual aspect of brand cues and/or the inability of the participants to focus on the role of auditory stimuli without direct exposure. According to these data, however, it is possible to infer that auditory brand cues elicited by, or interacting with, the other senses are plausible external indirect triggers of Generation Z's impulsive food shopping.

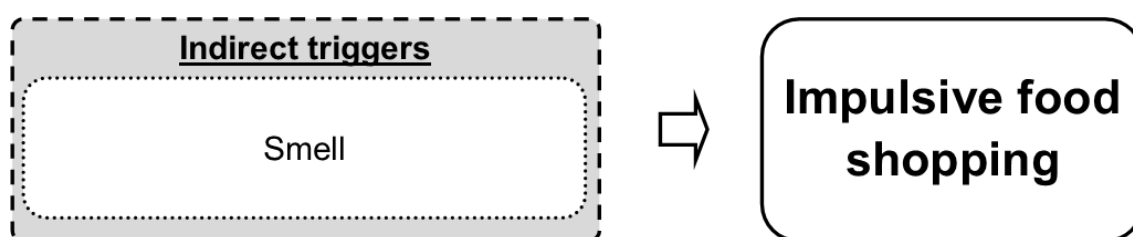


Figure 110: Smell – external indirect trigger

The results of this study indicate that participants' impulsivity can be triggered by both the smell of food, and its memory, when exposed to the related visual brand cue. In accordance with the present results, previous studies have demonstrated that olfactory cues play an important role within consumers' decision-making (Berger & Shiv, 2011; Krishna, 2012; Krishna et al., 2010; Morrin & Ratneshwar, 2003; Santini et al., 2019; Soars, 2009). Nevertheless, this research has shown that olfactory brand cues, or their memory elicited by the related visual cue, may enhance Generation Z's impulsivity in the food domain. These findings support the work of other studies in this area highlighting the role of smell in eliciting positive consumers' responses (Bert, 2013; Krishna, 2012).

Taken together, these results suggest that there may be an association between olfactory cues, and related interaction with the other senses, and Generation Z's

impulsive food shopping. An explanation for these results may be the ability of consumers to transfer rewarding properties from the actual reward (e.g. food) to the related cues (e.g. smell), which then become predictors of reward (Pavlov, 1927; Tetley et al., 2010; Volkow et al., 2011). As a consequence, based on the findings, it can be suggested that olfactory cues, and related visual brand cues, may act as external indirect triggers of Generation Z's impulsive food buying.

### **5.3 Internal direct triggers**

The results of this study show that several internal direct triggers have the ability to impact participants' impulsive food buying. Internal triggers are factors related to participants' personal characteristics, rather than related to situational (e.g. store and product) characteristics, affecting consumer impulsivity (Aragoncillo & Orús, 2018; Bahrainizad & Rajabi, 2018; Chan, Cheung, & Lee, 2017; Santini et al., 2019; Zhang, Xu, Zhao, & Yu, 2018; Zheng et al., 2019). Although these triggers emerge from within participants, they are elicited, or magnified, by hedonic visual brand cues exposure. The identification of the role of internal triggers on consumers' impulsivity has received significant attention in the literature (Aragoncillo & Orús, 2018; Bahrainizad & Rajabi, 2018; Chan, Cheung, & Lee, 2017; Xiao & Nicholson, 2013; Zhang, Xu, Zhao, & Yu, 2018; Zheng et al., 2019).

As shown in the table below, internal direct triggers related to reward, mood, temptation, vulnerability and impatience have been categorised as proximate causal factors of participants' impulsivity (i.e. emerged naturally during data collection). On the other hand, internal direct triggers associated to guilt, foraging calories, home-made feeling and social belonging have been categorised as distal causal factors of participants' impulsivity (i.e. requiring additional probing and elicitation). The present study raises the possibility that participants' impulsivity is affected by the abovementioned internal direct triggers when participants are exposed to hedonic visual brand cues.

Internal direct triggers	
Proximal	Distal
<ul style="list-style-type: none"> <li>• Reward</li> <li>• Mood</li> <li>• Temptation</li> <li>• Vulnerability</li> <li>• Impatience</li> </ul>	<ul style="list-style-type: none"> <li>• Guilt</li> <li>• Foraging calories</li> <li>• Home-made feeling</li> <li>• Social belonging</li> </ul>

Table 42: Internal direct triggers

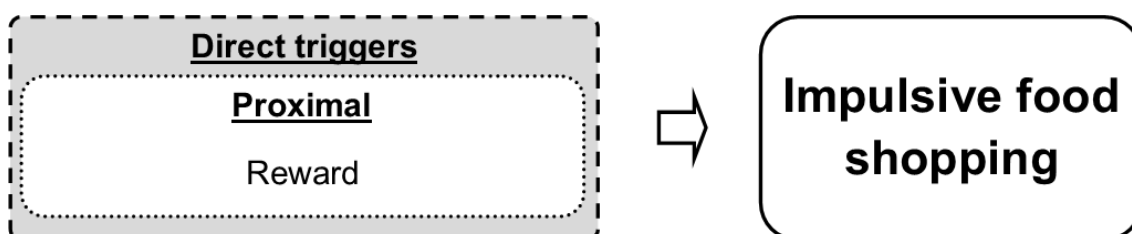


Figure 111: Reward – internal direct trigger

The results of this study suggest that there is an association between generalised impulsivity and reward seeking. Specifically, it appears that the reward originating from hedonic consumption behaviours may act as a trigger for generalised impulsivity. These results corroborate the findings of a great deal of the previous work that highlights a correlation between reward exposure, or priming, and altered consumers' responses (Alba & Williams, 2013; Chang et al., 2011; Fenton-O'Creevy & Furnham, 2019; Festjens et al., 2014; Floh & Madlberger, 2013; Hausman, 2000; Luo et al., 2014; Murawski et al., 2012; Silvera & Lavack, 2008; Simmank et al., 2015; Tetley et al., 2010; Zhang, Xu, Zhao, & Yu, 2018). In accordance with previous results, this study demonstrates that reward plays a

significant role within participants' impulsive responses when food shopping. Nevertheless, this study highlights the importance of reward within Generation Z's impulsive food buying. Specifically, impulsive food shopping appears to be a strategy that participants adopt to quickly reward themselves. Similarly, reward-triggering visual brand cues seem to facilitate impulsive responses. An explanation for this might be that individuals have an innate predisposition to identify and take advantage of rewards (Buss, 2005; Crawford & Krebs, 2008; Griskevicius & Kenrick, 2013; Kenrick, Saad, & Griskevicius, 2013).

The results of this study also indicate that reward-seeking behaviours can be reflected towards consumption of brands, generating brand-specific impulsivity. As discussed in the literature review, exposure to proximate rewards such as visual brand cues can trigger impulsivity not only related to those rewarding stimuli, but also towards the associated brand(s). These results corroborate the findings of a great deal of previous work exploring the out-of-domain effect of exposure to rewarding stimuli, including brand-specific willingness to pay (Anselmsson et al., 2014; Berger & Shiv, 2011; Briers, Pandelaere, Dewitte, & Warlop, 2006; Festjens et al., 2014; Giordano et al., 2002; Luo et al., 2014; Van den Bergh et al., 2008). In contrast to earlier findings, however, this research further extends the link between reward and Generation Z's impulsive buying within the food domain.

Reward-oriented impulsive behaviour appears to have the purpose of stimulating organisms to perform rapidly the behaviour necessary to achieve the reward (Berridge et al., 2009; Buss, 2005; Hartmann, 2010; Murawski et al., 2012; Roesch et al., 2007; Smith, Mulder, & Hill, 2001; Zheng et al., 2019). Considering that this kind of behaviour has been observed in this research towards brands after visual brand cues exposure, an explanation might be that hedonic rewards are processed in the same brain regions. As discussed in the literature review, this mechanism, once triggered, has the capability to provoke impulsive responses that are non-specific to the input (e.g. visual brand cues), but extends

to the associated stimuli (e.g. brands) (Baumeister, 2002; Berger & Shiv, 2011; Camerer, Loewenstein, & Prelec, 2005; Luo et al., 2014; Montague, King-Casas, & Cohen, 2006; Wadhwa, Shiv, & Nowlis, 2008). It is likely, therefore, that the reward felt by participants after hedonic visual brand cues exposure may act as an internal direct trigger of Generation Z's impulsive food buying.

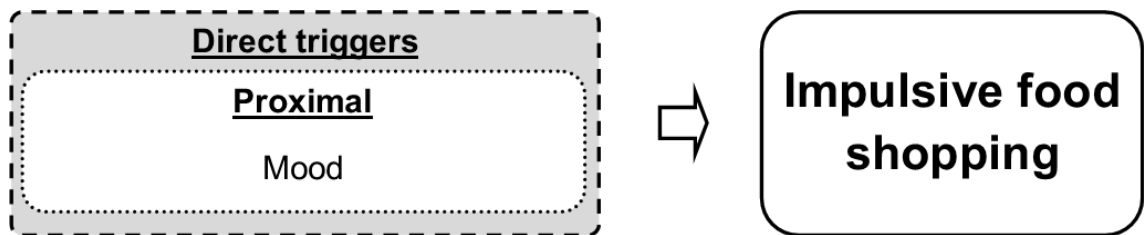


Figure 112: Mood – internal direct trigger

The results of this study show that participants' mood is capable of affecting their impulsive purchases. Specifically, both positive and negative moods appear to play a role within participants' impulsive food-shopping but for different reasons. The results of this study indicate that while positive moods enhance impulsive food-shopping with the purpose of extending happiness, negative moods triggered impulsive buying to minimise sadness. Furthermore, it appears that exposure to rewarding visual brand cues is capable of positively influencing participants' moods. An explanation for this might be that positive moods enhance participants' evaluation of visual brand cues (Ding & Tseng, 2015; Hansen, 2005; Krishna, 2012) while negative moods appear to trigger consummatory mechanisms (Garg & Lerner, 2013; Kacen & Lee, 2002; Park, 2006; Lavack, 2008; Lucas & Koff, 2017). In accordance with the present results, previous studies have demonstrated the key role of moods within consumers' decision-making (Bahrainizad & Rajabi, 2018; Floh & Madlberger, 2013; Hansen, 2005; Hausman, 2000; Hultén et al., 2013; Kacen & Lee, 2002; Luo et al., 2014; Park, 2006; Santini et al., 2019; Silvera & Lavack, 2008; Strack & Deutsch, 2004). However, the findings of the current study stress the role of positive and negative moods within Generation Z's impulsivity in the food domain.

The results of this investigation are in accord with previous studies indicating an effect of mood on consumers' impulsive behaviour (Bahrainizad & Rajabi, 2018; Berridge et al., 2009; Ding & Tseng, 2015; Floh & Madlberger, 2013) but further relate its significance in the food domain. An explanation for these results may be the natural tendency of organisms to extend positive states and minimise negative ones which, in this study, appears to be achieved through impulsive food shopping (Garg & Lerner, 2013; Griskevicius & Kenrick, 2013; Reck, 1980; Tuan Pham, 2004). Based on the findings, it can be suggested that participants' moods (positive and negative), as an outcome of rewarding visual brand cues exposure, may act as an internal direct trigger of Generation Z's impulsive food-shopping.

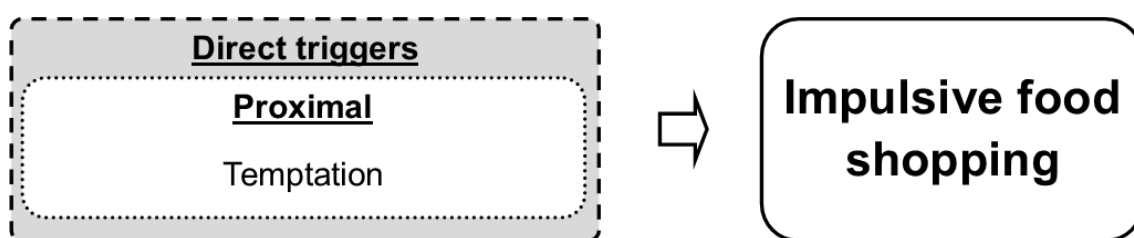


Figure 113: Temptation – internal direct trigger

The results of this study suggest that there is an association between participants' inability to resist temptation when exposed to visual brand cues and their impulsive purchases. Specifically, participants' inability to resist temptation is seen as a vulnerability leading to impulsive purchases. This study supports evidence from previous observations that underline the role of willpower and temptation within consumer behaviour (Baumeister, 2002; Higgins, 2006; Lucas & Koff, 2017; Mukhopadhyay et al., 2008; Murawski et al., 2012; Wertenbroch et al., 2008). Nonetheless, this study further stresses this causal factor within Generation Z's impulsive food shopping.

Overall, these results confirm the association between falling into temptation (as an outcome of reduced self-control) and enhanced impulsive buying (Hausman, 2000; Lo, Lin, & Hsu, 2016; Xiao & Nicholson, 2013). These results further support the idea of self-controlling temptation as a strategy used to reduce

impulsive purchases (Baumeister, 2002; Chang et al., 2011; Lo, Lin, & Hsu, 2016; Mukhopadhyay et al., 2008). An explanation for these results may be the lack of adequate determination and self-control in the process of reward-seeking (Hofmann et al., 2008; Lo, Lin, & Hsu, 2016; Mukhopadhyay et al., 2008; Tetley et al., 2010; Wertenbroch et al., 2008). Therefore, it can be suggested that the inability to resist temptation may be categorised as an internal direct trigger of Generation Z's impulsive food-shopping.

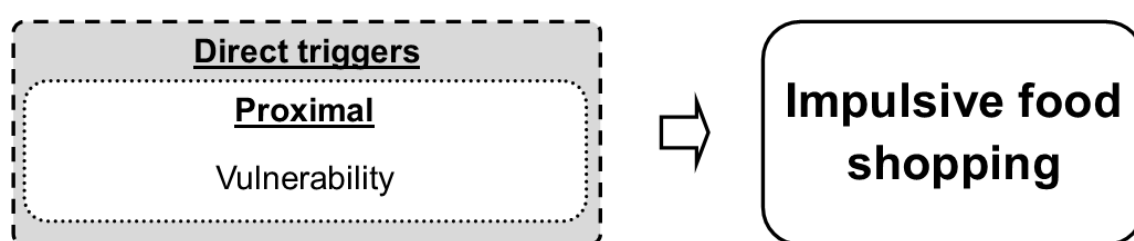


Figure 114: Vulnerability – internal direct trigger

The current study found that when participants feel vulnerable, they are more likely to make impulsive food-shopping decisions. These findings support the work of other studies in this area linking consumers' vulnerability with reward-seeking responses (Higgins, 2006; Hofmann et al., 2008; Strack & Deutsch, 2004; Volkow et al., 2011). Building on earlier findings, however, this research underlines the role of this causal factor within Generation Z's impulsive food shopping. Overall, it appears that low defences can deter rational control over impulsive behaviour, especially when participants are exposed to visual brand cues (Hofmann et al., 2008; Lo, Lin, & Hsu, 2016; So et al., 2015; Volkow et al., 2011).

These results are in accord with previous studies indicating that negative emotional states can affect reward seeking (Garg & Lerner, 2013; Higgins, 2006) but further link vulnerability to impulsive food buying. An explanation for this might be that "in vulnerable individuals, the consumption of high quantities of palatable food ... can upset the balanced interaction among these circuits, resulting in an

enhanced reinforcing value of food” (Volkow et al., 2011, p. 37). In this light, impulsive buying could be consistent with, and essential to, fast reward-seeking responses.

Furthermore, the results of this study indicate that addiction may be linked to increased participants’ vulnerability, which, in turn, appears to enhance impulsivity when participants are exposed to visual brand cues. Specifically, reward-seeking behaviour appears to be a potential cause of addiction towards the foods that trigger the related reward-seeking response. In accordance with the present results, previous studies have demonstrated a link between reward-seeking and addiction (Alba & Williams, 2013; Boyer & Barrett, 2015; Hsu & Yoon, 2015; Reimann et al., 2012; Strack & Deutsch, 2004). This may be caused by the maladaptive role that addiction may play within reward-seeking responses (Berlin, 2004; Boyer & Barrett, 2015; Saad, 2013; So et al., 2015). Consequently, based on these findings, it can be suggested that being vulnerable, or even addicted to certain foods, is a causal factor enhancing participants’ impulsivity and can then be categorised as an internal direct trigger of Generation Z’s impulsive food buying.

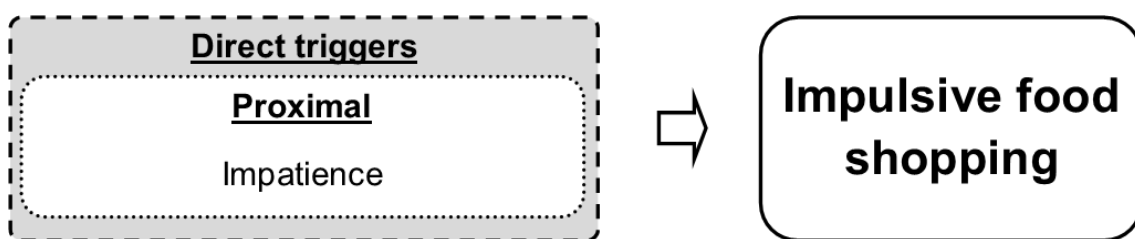


Figure 115: Impatience – internal direct trigger

The findings of this study suggest that impatience and instant gratification after exposure to visual brand cues are fundamentally related to impulsive food shopping. Furthermore, the evidence from this research indicates that time, or lack of it, have an impact on participants’ impulsive decisions. These findings support the work of other studies in this area linking impulsive behaviour to impatience, instant gratification and increased risk-taking (Aragoncillo & Orús,



2018; Festjens et al., 2014; Luo et al., 2014; Plassmann et al., 2012; Schultz, 2015; Van den Bergh et al., 2008; Xiao & Nicholson, 2013). However, the findings of this research further link impatience after exposure to visual brand cues to impulsive food-shopping in Generation Z. An explanation for this might be that exposure to rewarding brand cues during the shopping experience increases participants' impatience for instant gratification, which in the literature is linked to impulsive behaviour (Chang et al., 2011; Floh & Madlberger, 2013; Kacen & Lee, 2002; Lavack, 2008).

The relationship between impulsive food-shopping and impatience may be explained by research suggesting that impulsive behaviour may be an instrument with the purpose of motivating individuals to act fast, or impatiently, without considering pros, cons and potential consequences (Buss, 2015; Cohen & Bernard, 2013). It seems possible that these results are due to the fast nature of impulsive behaviour which, if slowed down, risks being minimised by participants (Berlin et al., 2004; Kahneman, 2011; Strack & Deutsch, 2004; Volkow et al., 2011). An explanation for this might be that time pressure may enhance impatience which, in turn, increases participants' impulsive food shopping (Hultén et al., 2013; Ramanathan & Menon, 2006; Wertenbroch et al., 2008). Hence, based on these findings it can be suggested that participants' impatience after exposure to visual brand cues could act as an internal direct trigger of Generation Z's impulsive food buying.

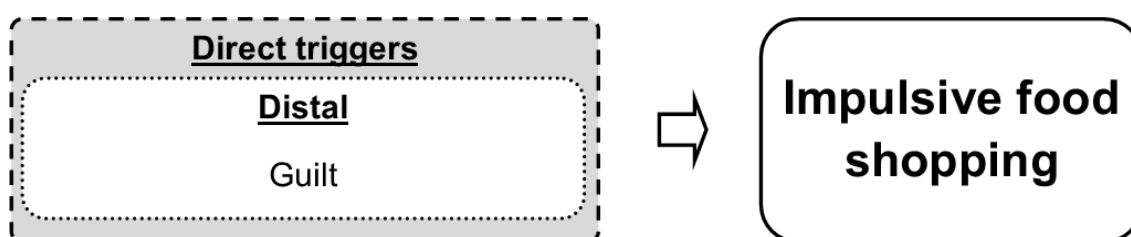


Figure 116: Guilt – internal direct trigger

The results of this study suggest that there is an association between impulsive food shopping and feelings of guilt. These findings support the work of other studies in this area linking feelings of guilt with negative consumers' emotions, and hence behavioural responses (Fedorikhin & Shiv, 1999; Krishna, 2012; Silvera & Lavack, 2008; So et al., 2015; Togawa et al., 2019; Tuan Pham, 2004; Young et al., 2013). The results of this study, however, further strengthen the relationship between impulsive food shopping of Generation Z and consequent emerging feelings of guilt. These results are likely to be related to the guilt originating from the perceived negative consequences associated to impulsive purchases (Krishna, 2012; Lavack, 2008; So et al., 2015).

Taken together, the results of this study highlight a negative relationship between feelings of guilt, especially when participants are exposed to visual brand cues eliciting them, and impulsive food shopping. This relationship may partly be explained by the adaptive role that guilt may play within one's behaviour (e.g. feelings of guilt leading to potential future reduction of behaviour(s) originating guilt) (Boyer & Barrett, 2015; Reck, 1980; Saad, 2013). Another explanation for these results may be that exposure to rewarding stimuli such as visual brand cues can affect decision-making enhancing participants' impulsivity but, when the source of reward is removed, participants rationalise their purchases (Krishna, 2012; Plassmann et al., 2008; Shiv & Fedorikhin, 1999; Tetley et al., 2010). Hence, based on the findings, it can be suggested that feelings of guilt elicited by visual brand cues may act as a counteracting force within Generation Z's impulsive food shopping. Similarly, the evidence from this study indicates that participants' ability to remove feelings of guilt may be categorised as an internal direct trigger of Generation Z's impulsive food-buying.

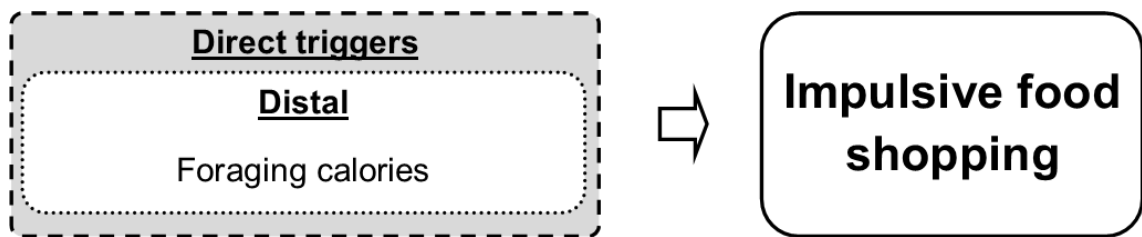


Figure 117: Foraging calories – internal direct trigger

The results of this study suggest that visual brand cues signifying highly caloric foods are capable of enhancing participants' impulsivity. In accordance with the present results, previous studies have demonstrated that rewarding food-related cues can trigger consumers' hedonic experiences (Alba & Williams, 2013; Brogan et al., 2010; Bryant et al., 2007; Garg & Lerner, 2013; Hays & Roberts, 2008). The findings of this study support previous research but further emphasise their role within Generation Z's impulsive food-shopping. This observed increase in impulsivity could be attributed to unconditioned rewarding properties of highly caloric food, which in turn may motivate participants to perform the related reward-triggering behaviour (Briers et al., 2006; Griskevicius & Kenrick, 2013; Saad, 2013).

Taken together, the results of this study suggest that visual brand cues representing highly caloric foods are capable of enhancing participants' impulsivity aimed at foraging and consuming calories. An explanation for this might be that a 'proximate' system, grounded on hedonic experiences that ensures the fast (or impulsive) satisfaction of a fundamental need such as food consumption, is consistent with evolutionary principles (Apaolaza-Ibáñez et al., 2011; Saad, 2013). These results indicate that visual brand cues representing highly caloric foods may act as internal direct triggers of Generation Z's impulsive food buying.

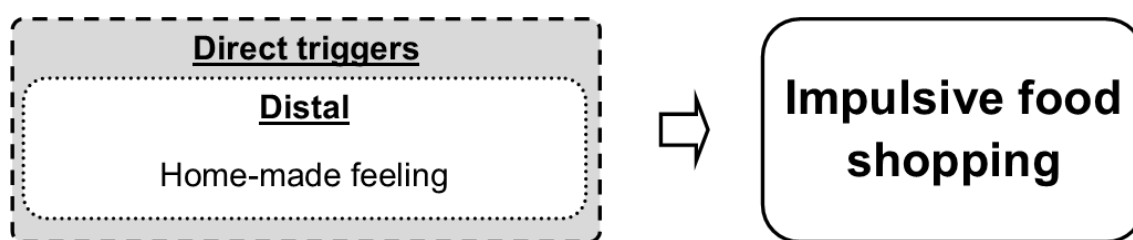


Figure 118: Home-made feeling – internal direct trigger

The findings of this research suggest that there is an association between visual brand cues that symbolise “home-made food” and participants’ increased impulsivity. Specifically, the current study found a conceptual link between ‘home-made’ visual brand cues and food that appears ‘made with love’. Exposure to these visual brand cues seems to make participants feel loved, consequently increasing their impulsivity when food shopping. In accordance with the present results, previous studies have demonstrated a relationship between consumers’ positive responses and feeling loved (Ding & Tseng, 2015; Ladhari et al., 2017; Reimann et al., 2012; So et al., 2015). This study confirms this relationship but further highlights the role of these visual brand cues within Generation Z’s impulsive food shopping. An explanation for these results may be the established link between seeking affection and positive consumers’ responses (Reimann et al., 2012; So et al., 2015).

Taken together, the results of this investigation indicate that participants’ impulsive food shopping is enhanced when exposure to hedonic visual brand cues reminds them of home-made feelings and feeling loved. An explanation for this might be that positive consumers’ responses may be associated to feelings of affection (Alba & Williams, 2013; Chang et al., 2011; Hansen, 2005). Another explanation for these results may be related to the innate reward originating from the parents-offspring relationship (Boyer & Barrett, 2015; Cohen & Bernard, 2013; Griskevicius & Kenrick, 2013; Kenrick et al., 2013; Krishna, 2012; Wells, 2012). It can therefore be assumed that home-made visual brand cues making

participants feel loved may be categorised as internal direct triggers of Generation Z's impulsive food-buying.

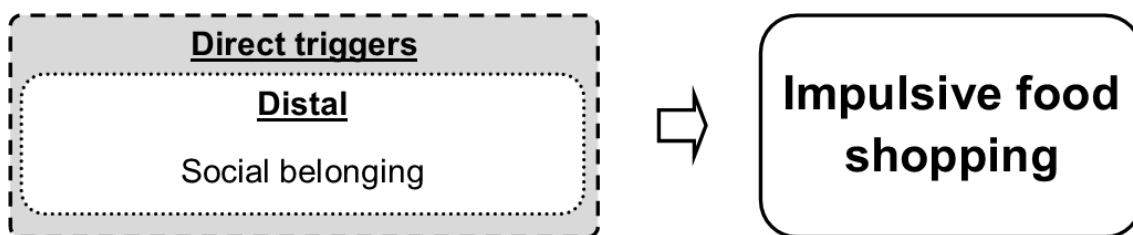


Figure 119: Social belonging – internal direct trigger

The results in this study indicate that visual brand cues related to social belonging affect participants' impulsive food buying. Consistent with the literature, visual brand cues that reminded participants about the possibility to strengthen group membership appeared to enhance their likelihood to buy those food brands on impulse (Chang et al., 2011; Schaefer & Rotte, 2007; Strack & Deutsch, 2004; Wells, 2012). Prior studies have noted the influence of group pressures on consumers' responses (Atulkar & Kesari, 2018; Millan & Diaz, 2014; Muniz & O'Guinn, 2001; Schau et al., 2009; Xiao & Nicholson, 2013). However, the findings of this research further relate visual brand cues associated to social belonging to Generation Z's impulsivity in the food domain.

Moreover, the current study found that visual brand cues that reminded participants of popularity could enhance their impulsive purchases (Griskevicius & Kenrick, 2013; Kim et al., 2013; Saad, 2013). These results are likely to be related to the hedonic reward these visual brand cues trigger by stressing the in-group membership values of belonging, family, friendship and altruism (Ackerman et al., 2007; Buss, 2005; Dawkins, 1989; Foxall, 1993; Saad, 2013). As a result, participants' willingness to achieve social belonging, especially when triggered by the related visual brand cues, can be categorised as internal direct triggers of Generation Z's impulsive food buying.

## 5.4 Internal indirect triggers

The results of this study suggest that there are several internal (i.e. “related to personal characteristics”) indirect triggers that may affect participants’ impulsive food buying (Santini et al., 2019). Indirect triggers mediated by, or interacting with, direct triggers have been examined in the literature as causal factors of participants’ impulsivity (Bahrainizad & Rajabi, 2018; Chan et al., 2017; Fenton-O’Creevy, Dibb, & Furnham, 2018; Lucas & Koff, 2017; Vieira, Santini, & Araujo, 2018; Vonkeman, Verhagen, & van Dolen, 2017; Zheng, Men, Yang, & Gong, 2019). As shown in the table below, four internal indirect triggers emerged from theming participants’ views on this aspect of their impulsive buying: brand recall; habits; nostalgia and childhood memories.

<b>Internal indirect triggers</b>	
• Brand recall	• Nostalgia
• Habits	• Childhood memories

Table 43: Internal indirect triggers

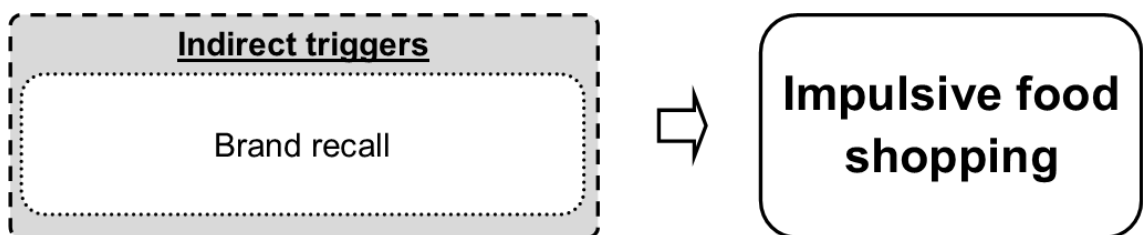


Figure 120: Brand recall – internal indirect trigger

The results of this study provide important insights into how brand recall after exposure to visual brand cues, and learning in a broader sense, have an impact on participants’ impulsive food shopping. Among the issues found in the data, it is worth noting familiarity with the brand, decreased perceived risk; previous

rewarding experiences with the brand and recalling of the brand and/or related promotional messages. Comparison of these findings with those of previous studies confirms that memory plays a crucial role in shaping consumer behaviour (Pessiglione et al., 2008; Plassmann et al., 2012; Rangel et al., 2008; Schultz, 1998, 2015). Nevertheless, the findings of this study point out that visual brand cues eliciting brand recall may trigger Generation Z's impulsive food shopping. An explanation for this might be the significant role of memory within participants' emotions when food shopping (Cahill, 2000; Hsu & Yoon, 2015; Krishna et al., 2010; Shapiro & Krishnan, 2001; Lavack, 2008).

In summary, these results show that brand recall after exposure to visual brand cues, and learning in a broader sense, may impact participants' impulsive food-shopping. This relationship may be explained by the fact that visual brand cues reminding participants of previous experiences, or encounters with the brand, could be considered as conditioned stimuli (section 2.1.3) that trigger goal-directed behaviour (Glimcher, 2009; Simmank et al., 2015; Volkow et al., 2011). Therefore, it can be suggested that visual brand cues capable of interacting with participants' memory can be categorised as an internal indirect triggers of Generation Z's impulsive food buying.

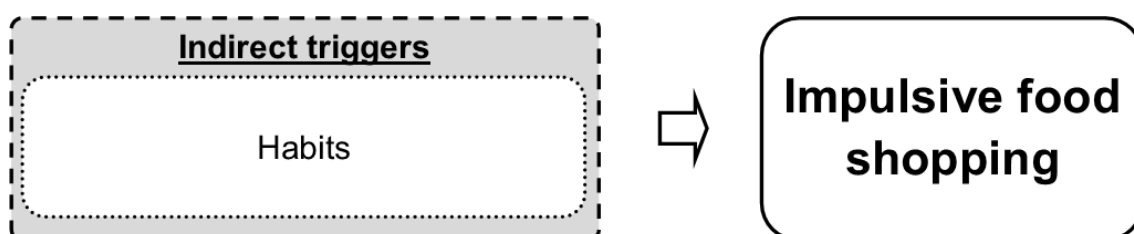


Figure 121: Habits – internal indirect trigger

The results of this study suggest that there is an association between the habits of participants and food bought impulsively. Specifically, it appears that visual brand cues reminding participants of their shopping habits may lead them to buy the food brands they are used to impulsively. These results corroborate the findings of a great deal of previous work showing the importance of consumers'

habits on their shopping behaviour (Floh & Madlberger, 2013; Hofmann et al., 2008; Moayery et al., 2019; Muniz & O’Guinn, 2001; Sebastiani & Montagnini, 2013; Seo & Gao, 2015). Nonetheless, the current study found that visual brand cues in this domain may also influence Generation Z’s impulsivity in the food domain. These results are likely to be related to the role of habits within impulsive decisions (Strack & Deutsch, 2004).

Taken together, the findings of this study highlight the influence of participants’ habits on Generation Z’s impulsive food shopping. These results support the idea of brands as heuristics capable of facilitating consumer choice (Hausman, 2000; Hofmann et al., 2008; Strack & Deutsch, 2004) and further stress their role within Generation Z’s impulsive food shopping. An explanation for this might be that purchasing food brands one is familiar with decreases perceived risk (Cohen & Bernard, 2013; Tifferet & Herstein, 2012). Therefore, based on the findings, it can be suggested that participants’ habits, triggered by the related visual brand cues, may act as internal indirect triggers of Generation Z’s impulsivity in the food domain.

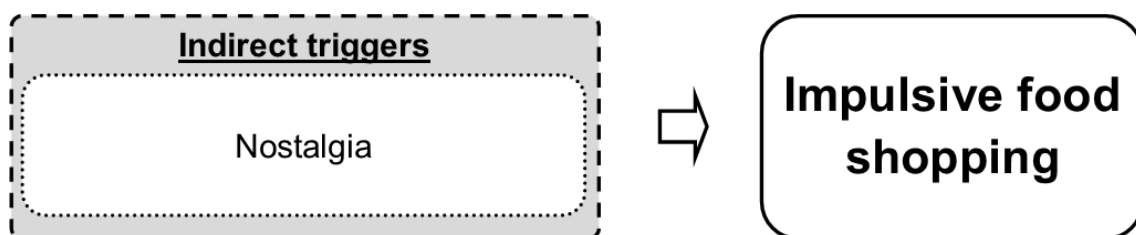


Figure 122: Nostalgia – internal indirect trigger

In this study, visual brand cues triggering nostalgic feelings were found to cause participants’ impulsivity towards the brands which employed them. Specifically, exposure to visual brand cues triggering a state of nostalgia seemed to enhance participants’ food-shopping impulsivity. In accordance with the present results, previous studies have demonstrated that nostalgia has the capability to elicit positive consumers’ responses (Alba & Williams, 2013; Muniz & O’Guinn, 2001). These results further support the idea of nostalgic and comforting feelings as a



key factor in participants' impulsive food-shopping (Garg & Lerner, 2013). This study, however, further links feelings of nostalgia elicited by visual brand cues to an increased impulsivity in Generation Z's food shopping.

Exposure to visual brand cues that triggered a state of nostalgia, which often recalls events related to participants' previous experiences, appeared to create the conditions for impulsive purchases to take place (Hemar-Nicolas et al., 2013; Hsu & Yoon, 2015). An explanation for this might be that visual brand cues triggering nostalgia may enhance impulsivity because it reminds participants of "home", which in turn may be related to family, country of origin, and parental love (Cohen & Bernard, 2013; Krishna, 2012; Saad, 2013). Hence, these findings suggest that nostalgic feelings elicited by visual brand cues exposure may act as internal indirect triggers of Generation Z's impulsivity in the food domain.

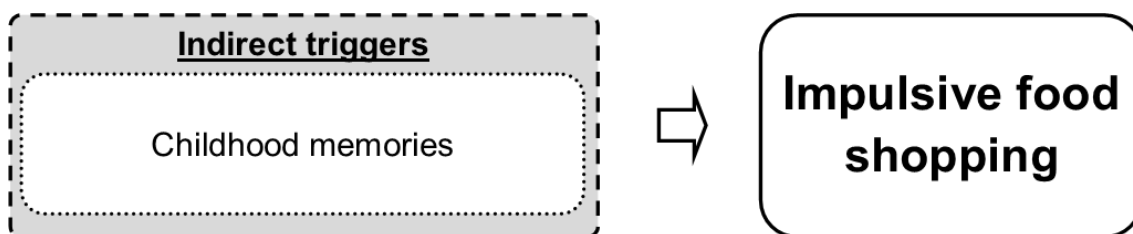


Figure 123: Childhood memories – internal indirect trigger

The evidence from this study suggests that childhood memories elicited by visual brand cues found in the shopping environment, often associated with participants' upbringing, can trigger impulsive food shopping. This finding broadly supports the work of other studies in this area conceptualising consumers' preferences as rooted and established in their childhood (Bruce et al., 2014; Hemar-Nicolas et al., 2013; Higgins, 2006; Spear, 2011; Strack & Deutsch, 2004). However, the findings of the current study highlight the importance of childhood memories triggered by visual brand cues within Generation Z's impulsive food shopping.

These results confirm the association between exposure to visual brand cues that trigger childhood memories and enhanced impulsivity. This association may be

explained by consumers' elicitation of positive responses when exposed to visual brand cues triggering childhood memories (Chang et al., 2011; Lavack, 2008). Another possible explanation may be related to the innate evolutionary advantages associated to establishing vivid childhood memories and their consequent acquisition of rewarding properties (Cohen & Bernard, 2013; Griskevicius & Kenrick, 2013; Shapiro & Krishnan, 2001). It is likely, therefore, that childhood memories experienced by participants after hedonic visual brand cues exposure may act as internal indirect triggers of Generation Z's impulsive food buying.

## 5.5 Causal mechanisms

Several causal mechanisms appeared to play a role in influencing participants' impulsivity when exposed to visual brand cues. Causal mechanisms (i.e. systems, processes and ways of acting) have received significant attention in the literature investigating impulsive behaviour (Chan et al., 2017; Ding & Tseng, 2015; Fenton-O'Creevy et al., 2018; Fiore & Kim, 2007; Hofmann et al., 2008; Iyer et al., 2019; Koles et al., 2018; Lieven et al., 2015; Reimann et al., 2012; Tifferet & Vilnai-Yavetz, 2017; Vieira et al., 2018; Vonkeman et al., 2017; Xiao & Nicholson, 2013). As a result, the present study raises the possibility that the mechanisms shown below may enhance Generation Z's impulsive food buying.

<b>Causal mechanisms</b>					
Value trade-offs	Emotional and cognitive conflict	Rational impairment	Reward-seeking duality	Guilt reducing strategies	Compensatory consumption

Table 44: Causal mechanisms

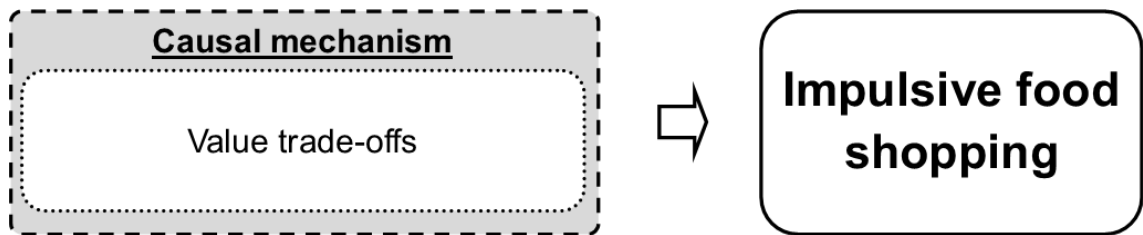


Figure 124: Value trade-offs – Causal mechanism

The results of this study indicate that participants make value trade-offs (e.g. gratification versus guilt) when purchasing food impulsively. Specifically, the perception of positive ratios after visual brand cues exposure seems to act as a catalyser for impulsive food shopping. These results reflect those of several authors (Brodie et al., 2009; Hansen, 2005; Seo & Gao, 2015; Sweeney & Soutar, 2001; Whittaker, Ledden, & Kalafatis, 2007) who also found that consumers trade-off between positive and negative reinforcements to make purchase decisions. However, this study further underlines the role of this value-laden mechanism within Generation Z’s impulsive food shopping. Furthermore, this research shows that exposure to visual brand cues can enhance the perception of positive values while reducing the weight of negative values such as price. Specifically, if price is low it can enhance impulsive purchases, which is consistent with the idea that decision-making during food shopping can be a trade-off with price being a denominator of the fraction (Rangel et al., 2008; Strack & Deutsch, 2004; Zellman et al., 2010).

Taken together, the results of this study suggest that participants use trade-off judgements when purchasing food impulsively. Furthermore, the evidence from this research suggests that participants’ perception of positive values is increased after visual brand cues exposure. An explanation for this might be that consumers may feel legitimised to proceed with the impulsive decision when the perceived gains exceed the perceived losses (Griskevicius & Kenrick, 2013; Knutson et al., 2008; Plassmann et al., 2012; Reimann et al., 2012; Wells, 2012). These results seem to be consistent with other research which explains decision-making as a

trade-off between gains (e.g. reward) and losses (e.g. guilt) (Brodie et al., 2009; Hansen, 2005; So et al., 2015; Whittaker, Ledden, & Kalafatis, 2007). Hence, based on these findings, it can be suggested that negative value ratios may be considered as a counteracting mechanism of participants' food shopping impulsivity while positive value ratios may be categorised as a causal mechanism enhancing Generation Z's impulsive food buying.

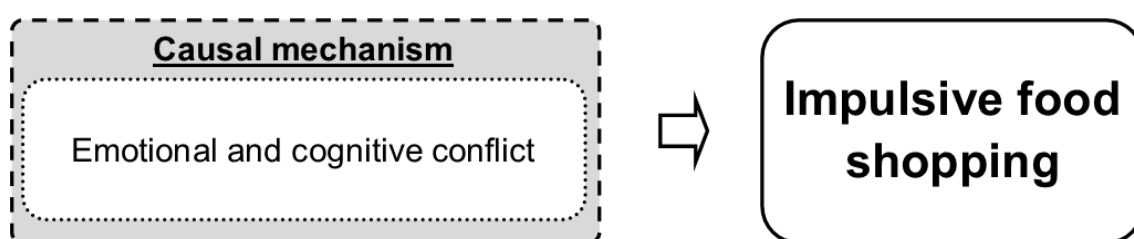


Figure 125: Emotional and cognitive conflict – Causal mechanism

The results of this study show that both cognition and emotion affect participants' shopping behaviour. In accordance with the present results, previous studies have demonstrated that both the abovementioned components can impact consumer behaviour (Bagozzi et al., 1999; Berlin, Rolls, & Kischka, 2004; Brakus, Schmitt, & Zarantonello, 2009; Brodie et al., 2009; Bruce et al., 2014; Chang & Chieng, 2006; Ding & Tseng, 2015; Esch et al., 2012; Parayitam & Dooley, 2009; Reimann et al., 2012; Sofi, 2018). This study, however, further underlines that both cognition and emotion may play a role within Generation Z's impulsivity while food shopping. Specifically, the results of this investigation show that exposure to visual brand cues can trigger the emotional component of decision-making, consequently enhancing participants' impulsive food shopping. An explanation for these results may be related to the significant impact of emotions on behaviour (Esch et al., 2012; Leone et al., 2005; Shaw, 2007; Yates, 2007).

These results are in line with those of previous studies which highlight the role of emotions within consumers' decision-making (Parayitam & Dooley, 2009; Shiv & Fedorikhin, 1999; Tuan Pham, 2004) but further stress their role within Generation Z's impulsive food buying. This coexisting influence of both emotional

and cognitive components on decision-making may be due to the neurological proximity of the cognitive and emotional systems. As mentioned in section 2.2.5.2, these two systems cooperate in influencing decision-making (Bagozzi, 2010; Hsu & Yoon, 2015; Rangel et al., 2008; Reimann et al., 2012; Roesch et al., 2007). This finding is consistent with research highlighting the adaptive role of emotions especially when a fast multi-tasking ability is required (Panksepp, 1999). Therefore, these results suggest that the cognitive component of decision-making may be considered as a counteracting mechanism of Generation Z's food shopping impulsivity. On the other hand, according to the results of this study, the emotional component of decision-making, which appears to be triggered by exposure to hedonic visual brand cues, may be categorised as a causal mechanism of Generation Z's impulsive food buying.

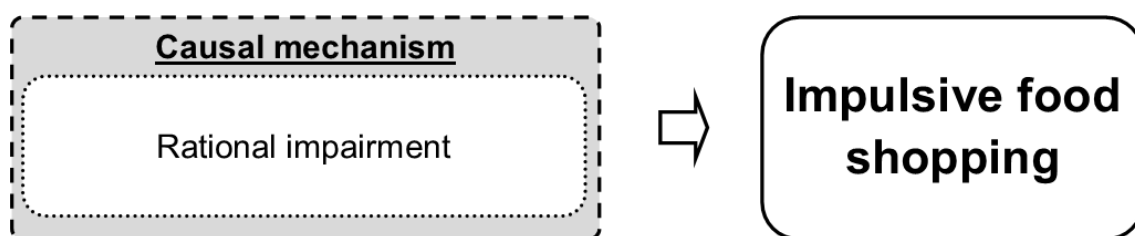


Figure 126: Rational impairment – Causal mechanism

The results of this study indicate that when participants feel rationally impaired, they tend to make more impulsive decisions. Furthermore, this study shows that rational impairment can be enhanced after visual brand cues exposure. In accordance with the present results, previous studies have demonstrated that the interplay of cognition and emotion can be altered by situational factors with emotion prevailing when cognition is impaired (Aragoncillo & Orús, 2018; Etkin & Sela, 2015; Klein, 2014; Shiv & Fedorikhin, 1999). These results are in line with those of previous studies but further stress the importance of this causal mechanism within Generation Z's impulsive decisions in the food domain.

The results of this study indicate that rational impairment caused by consumers' emotional engagement with the purchase decision can trigger impulsive food buying (Hofmann et al., 2008; Parayitam & Dooley, 2009; Shiv & Fedorikhin, 1999). These results may be explained by the fact that both cognition and emotion affect decision-making; but when the cognitive system is impaired, the emotional system prevails especially after visual brand cues exposure (Berger & Shiv, 2011; Berlin, 2004; Bert, 2013; Yates, 2007). An implication of this is then the possibility that rational impairment may be categorised as a causal mechanism of Generation Z's impulsive food buying.

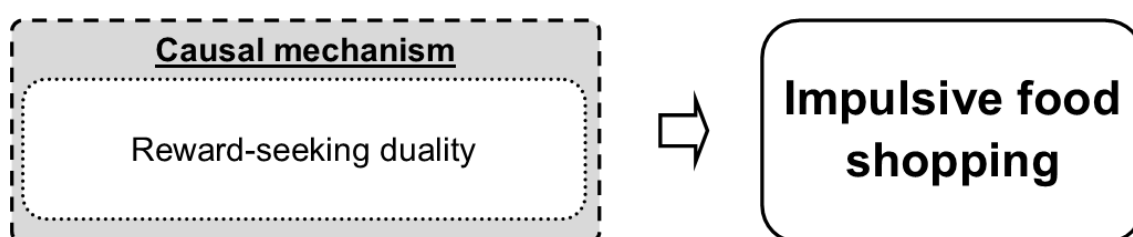


Figure 127: Reward-seeking duality – Causal mechanism

The results of this study indicate that participants' food shopping impulsivity after exposure to hedonic visual brand cues generates conflicting outcomes: reward and regret. Analysing participants' impulsive behaviour driven by reward seeking, there seems to be a coexisting duality of positive (i.e. reward) and negative (i.e. regret) responses simultaneously. In accordance with the present results, previous studies have demonstrated that consumer behaviour is an outcome of both reflective and impulsive mechanisms, with the latter being prevalent in reward-seeking decisions (Floh & Madlberger, 2013; Hausman, 2000; Hofmann et al., 2008; Moayery et al., 2019; Strack & Deutsch, 2004; Xiao & Nicholson, 2013; Zheng et al., 2019). The results of this study are consistent with previous observation but further stress these bivalent outcomes of impulsive behaviour (i.e. reward and regret) within Generation Z's impulsive food buying.

Although participants appear to indulge in impulsive purchases to reward themselves, either directly or metaphorically, the perception of negative consequences emerges from the dataset (Hofmann et al., 2008; Reimann et al., 2012). The divergent consequences of impulsive decisions may be explained by the dynamic interaction of affective (i.e. reward oriented) and reflective (i.e. consequences focused) influences on decision making (section 2.2.5). Based on the findings, it can be suggested that the feelings of regret associated with impulsive purchases may behave as a counteracting mechanism of participants' impulsive food-shopping. Contrarily, Generation Z's reward seeking after visual brand cues exposure may act as a reinforcing mechanism of impulsive food buying.

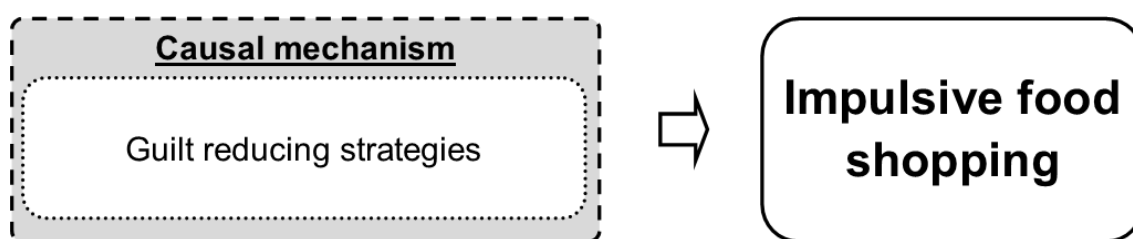


Figure 128: Guilt reducing strategies – Causal mechanism

The participants in this study appear to find different guilt reducing strategies (discussed in section 4.5.5.) to justify their impulsive purchases. Specifically, different forms of attenuating conditions due to a multitude of causes appear to be mentioned as mitigating mechanisms of impulsive food shopping after visual brand cues exposure. These results seem to be consistent with previous observations (Festjens et al., 2014; Garg & Lerner, 2013; Hansen, 2005; Togawa et al., 2019; Xiao & Nicholson, 2013; Zellman et al., 2010) but further stress the role of guilt reducing strategies in Generation Z's impulsive food shopping. These results appear to confirm the association between consumer choices and their ability to justify them by counteracting negative states or rewarding positive ones (Hansen, 2005; Yates, 2007).

The results of this study suggest that participants' ability to find strategies to reduce their guilt plays a role within their impulsive decisions when food shopping. These results are likely to be related to consumers' ability to mitigate guilt following impulse buying (e.g. consumers mitigate guilt by justifying it which, in turn, facilitates the impulsive purchase of gratifying food) (Alba & Williams, 2013; Ding & Tseng, 2015; Ladhari et al., 2017; Palazon & Delgado-Ballester, 2013; Xiao & Nicholson, 2013). As a consequence, these results suggest that the ability to mitigate feelings of guilt is a reinforcing mechanism of Generation Z's impulsive food buying.

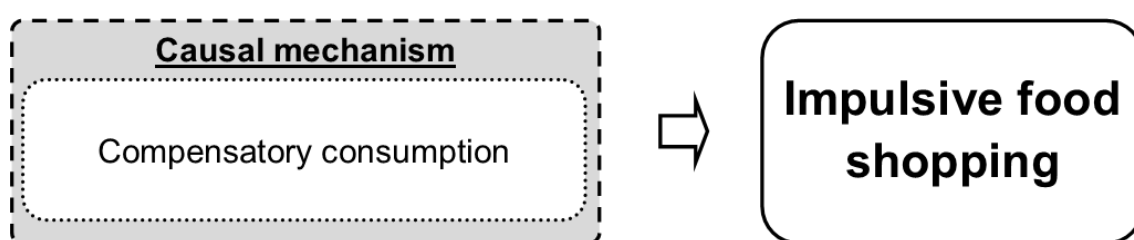


Figure 129: Compensatory consumption – Causal mechanism

The results of this study indicate that when participants feel down, stressed or exposed to some sort of negative state, they may buy food impulsively to compensate. Similarly, it appears that visual brand cues exposure can enhance compensatory consumption mechanisms that, in turn, increase participants' impulsivity. In accordance with the present results, previous studies have demonstrated the role of compensatory consumption within consumer behaviour (Festjens et al., 2014; Garg & Lerner, 2013; Hansen, 2005; Lucas & Koff, 2017; Xiao & Nicholson, 2013; Zellman et al., 2010). The results of this research corroborate previous observations but further link compensatory consumption to Generation Z's impulsive food shopping. These results further support the idea of compensatory consumption as a causal mechanism reinforcing and justifying participants' impulsive food shopping (Banister & Hogg, 2004; Garg & Lerner, 2013).



Impulsive food buying driven by compensatory consumption is consistent with the idea that negative consumers' states have the capability to trigger consummatory mechanisms aimed at compensating with rewarding food (Garg & Lerner, 2013; Simmank et al., 2015; Tetley et al., 2010). These results are likely to be related to the fast nature of impulsive behaviour that seems to act as a bridge that allows the achievement of rapid gratification which, in turn, appears to compensate participants' negative states (Maxwell, 2014; Mittal et al., 2016; Strack & Deutsch, 2004). Therefore, an implication of these results is the possibility that compensatory consumption mechanisms may be capable of enhancing Generation Z's impulsive food buying.

## **5.6 Summary**

In summary, this chapter has discussed the findings of this investigation comparing and contrasting them to existing literature. As a result of the discussion, several causal factors and mechanisms have been identified as capable of influencing Generation Z's impulsive food buying. Although each identified factor and mechanism has been shown to enhance participants' impulsive food-buying, it is worth highlighting that their influence on participants does not unavoidably lead to impulsive food shopping. Rather, the likelihood of impulsive food buying is increased when participants are exposed to, or experience, the abovementioned causal factors and mechanisms. The next chapter summarises the evaluation presented in this chapter suggesting implications for the field of study and providing practical recommendations for industry-related stakeholders.

## **6 Conclusion**

This thesis was designed to investigate the causal factors and mechanisms influencing Generation Z's impulsive food buying following hedonic visual brand cues exposure. The review of the literature showed that the causal factors and mechanisms affecting Generation Z's impulsive food buying are poorly understood. As a result, a multiple case-study approach was adopted to allow a deeper insight into the phenomenon studied. Specifically, by employing a qualitative mode of enquiry, the research data were drawn from three triangulated sources of evidence: observation of purchase behaviour; semi-structured interviews aided by photo elicitation and projective techniques; and online diaries via social media. The analysis of data has shown that several external and internal causal factors (direct and indirect) and mechanisms can influence Generation Z's impulsivity when food-shopping. This chapter concludes the study and evaluates the key contribution to knowledge and practical implications of this research. The way in which the objectives of this investigation have been met throughout the different chapters of the thesis is discussed in the following sections. Then, contribution to knowledge, recommendations for practitioners and methodological contribution are provided. Finally, the limitations of the study and avenues for future research are discussed.

### **6.1 Objectives achievement**

The aim of this research was to identify, explore and explain the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive food buying. With the purpose of accomplishing the aforementioned aim, the subsequent objectives have been established and met:

1. To critically evaluate extant literature to conceptualise the causal factors and mechanisms influencing Generation Z's impulsive food buying.

The second chapter met this objective by presenting a critical review of existing literature on hedonic brand cues, consumers' decision-making and impulsive behaviour. The combined critical analysis of these themes highlighted several theoretical factors and generative mechanisms underlying this relationship. Furthermore, the review of the literature underlined relevant theories, concepts and models that offered a theoretical lens to explain the causal factors and mechanisms identified through primary research. The review of the literature, however, revealed that further research in the food domain aimed at identifying and exploring the causal factors and mechanisms influencing Generation Z's impulsive buying after exposure to hedonic visual brand cues was needed.

2. To design a methodology aimed at identifying, exploring and explaining the causal factors and mechanisms affecting participants' impulsive food buying following hedonic visual brand cues exposure.

The third chapter met this objective by providing an account of the methodology adopted to address the thesis aim and related research questions. The methodology adopted a triangulated multi-method qualitative design: participant observation of purchase behaviour; semi-structured interviews aided by photo elicitation and projective techniques; and online diaries via social media. The employed methods have been designed in order to deepen progressively the holistic understanding of the causes of participants' impulsivity as outcome of hedonic visual brand cues exposure. This choice represented a logical deduction based on the aim, objectives, context, research questions and nature of phenomenon analysed.

3. To investigate which, how, and why, causal factors and mechanisms influence participants' impulsive food buying.

The fourth and fifth chapters met this objective by identifying, exploring and explaining the causal factors and mechanisms affecting participants' impulsive food buying. This was achieved by triangulating evidence retrieved from the three

abovementioned research methods. After an initial coding, data obtained from the three data collection methods employed in this research have been themed through NVivo. Specifically, one set of themes has been created for each method used: observation of participants' purchase behaviour; semi-structured interviews and participants-driven online diaries. The first set of themes served as a preliminary understanding of participants' impulsive food choices and gave the researcher thematic rationale to refine the other two methods employed in this research. Data collected through interviews and participant-driven online diaries, on the other hand, allowed the researcher to study the observed phenomenon in depth. Consistent with the chosen philosophical position, critical realism, the process of discussion and analysis was iterative. As a result, the original themes created through NVivo needed to be refined, combined or eliminated. Comparing and contrasting the key findings with the reviewed literature, the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and participants' impulsive food buying have been investigated.

4. To develop, on the basis of the findings:
  - i. An explanatory theoretical model that incorporates the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying.
  - ii. Practical implications to guide practitioners towards maximising the effectiveness of visual brand communication strategies and Generation Z's impulsive food buying.

The sixth chapter, derived from the analysis and discussion of findings in the previous chapters, met the last objective by illustrating the building blocks of the developed theoretical model (figure 95) that incorporates the causal influence of hedonic visual brand cues on Generation Z's impulsive food buying. Specifically, contribution to knowledge related to each identified causal factors and mechanism is discussed (section 6.2). Likewise, practical implications to guide practitioners towards maximising the effectiveness of visual brand communication strategies and Generation Z's impulsive food buying are offered.

Moreover, methodological contribution linked to the adopted triangulated multi-method qualitative approach is discussed. Furthermore, a summary table that identifies key similarities and differences in relation to the conceptual framework is presented. The remaining part of the chapter gives an account of the limitations of the study and discusses avenues for future research. Finally, a research summary is provided.

## **6.2 Contributions to theory and practical implications**

The findings from this study make several contributions to the current literature. First, this thesis has contributed to previous studies investigating impulsive buying (Iyer, Blut, Xiao, & Grewal, 2019; Santini, Ladeira, Vieira, Araujo, & Sampaio, 2019; Zheng, Men, Yang, & Gong, 2019) by identifying, exploring and explaining 28 causal factors and 6 causal mechanisms influencing Generation Z's impulsive food buying. Then, this research has provided a deeper insight into the role of hedonic involvement within impulsive buying (Dey & Srivastava, 2017; Santini et al., 2019; Sofi, 2018; Vieira, Santini, & Araujo, 2018). Furthermore, this is the first study to apply these findings in the food context within a specific group of consumers which requires further investigation, Generation Z (Kamenidou et al., 2018; Kamenidou, Mamalis, Pavlidis, & Bara, 2019; Özkan, 2017; Priporas, Stylos, & Fotiadis, 2017; Sotodehasl, Amirahmadi, Ghorbani, Masoudian, & Samaei, 2019; Vojvodić, 2019; Vukić, 2019). Finally, this work contributes to existing knowledge of impulsive food buying by focusing on the influence of cues found in the shopping environment filtered by one of consumers' senses: vision (Eklund & Helmfalk, 2018; Forzano et al., 2010; Kauppinen-Räsänen & Jauffret, 2018; Khachatryan et al., 2018; Knoeferle, Knoeferle, Velasco, & Spence, 2017; Kpessa & Lick, 2020; Van Rompay, Franssen, & Borgelink, 2014; Wiedmann, Labenz, Haase, & Hennigs, 2018; Zheng et al., 2019).

As a result, this research is the only study to identify, explore and explain the causal factors and mechanisms underlying the relationship between hedonic visual brand cues exposure and Generation Z's impulsive buying in the food

context. Although the literature review served as a basis to conceptualise the entities under scrutiny in the primary research (figure 1), this study has contributed to fill the research gap by identifying, exploring and explaining 28 causal factors and six causal mechanisms influencing Generation Z's impulsive food buying. As shown in the conceptual framework (Figure 95), these causal factors and mechanisms were not previously identified as influencing Generation Z's impulsive buying in the food domain. Theoretical contributions and practical implications of each identified factor and mechanism are discussed in the following sections. Although the practical implications of this study focus on highlighting recommendations for practitioners, a critical reader interested in minimising Generation Z's impulsive food buying may find the following sections meaningful. Nevertheless, as discussed in section 6.5, this would be a fruitful area for future research.

### 6.2.1 External direct triggers (proximal)

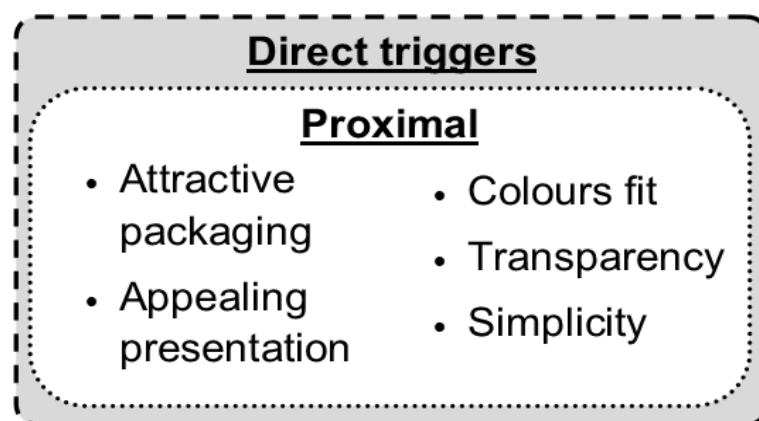


Figure 130: External direct triggers (proximal)

#### 6.2.1.1 Attractive packaging

This study has shown that attractive packaging enhances Generation Z's impulsive food shopping. Other studies are consistent with data obtained in this investigation (e.g. Bahrainizad & Rajabi, 2018; Hsu & Yoon, 2015; Hultén & Vanyushyn, 2011; Hultén et al., 2013; Oliveira et al., 2014) but have been

conducted with different generations and not in the food domain. As a result, this study proves useful in providing deeper insight into Generation Z's food-shopping impulsive buying.

#### *Practical implications*

The insights gained from this study may be of assistance to brand managers wanting to target Generation Z. For instance, based on the findings of this study, particular attention should be given to the packaging itself, rather than the product, in order to enhance Generation Z's impulsive purchases. Specifically, all the external direct triggers identified in this research can be used to design meaningful packaging for Generation Z. Furthermore, considering the highlighted association between perceived brand quality and attractive visual brand cues on the packaging, investments in food labelling and packaging should be a priority in order to enhance Generation Z's impulsive buying.

#### **6.2.1.2 Appealing presentation**

The research has also shown that appealing presentation of products can enhance Generation Z's impulsive decisions when food shopping. Previous studies have highlighted the role of atmospheric cues in the shopping environment (e.g. Chang et al., 2011; Flamand, Ghoniem, & Maddah, 2016; Floh & Madlberger, 2013; Hausman, 2000; Ladhari et al., 2017; Miao et al., 2019; Park, 2006; Santini et al., 2019). However, this result has not previously been described in the context of food choices made by Generation Z. Consequently, this study contributes to our understanding of Generation Z's impulsive food-shopping.

#### *Practical implications*

An implication of this is the possibility that appealing food-shopping environments, such as appealing presentation of products in the supermarket shelves, may be used to enhance Generation Z's impulsive food shopping. Moreover, based on the research findings, brand managers wanting to target

Generation Z may want to invest in creating calm and relaxed shopping environments, clean store designs and presentations of products that evoke an idea of genuineness.

#### **6.2.1.3 Colours fit**

The findings of this study suggest that Generation Z's impulsive purchases are enhanced when there is a fit between the category of food bought and the colours used. Specifically, two categories emerged in this study: healthy foods (requiring transparent packaging or pastel colours to trigger impulsivity) and unhealthy foods (requiring brighter colours to trigger impulsivity). This need for congruency complement those of earlier studies (e.g. Bahrainizad & Rajabi, 2018; Chang et al., 2011; Coulter et al., 2001; Ding & Tseng, 2015; Floh & Madlberger, 2013; Krishna, 2012; Ladhari et al., 2017; Strack & Deutsch, 2004) extending it to Generation Z.

##### *Practical implications*

The findings of this research provide insights also for brand managers interested in targeting Generation Z. Specifically, according to this study, shiny and bright colours should be used to market unhealthy foods; while pastel coloured packaging, plain colours, monochromatic packaging and colours that transmit an idea of naturalness should be prioritised for healthy foods.

#### **6.2.1.4 Transparent packaging**

The results of this study indicate that transparent packaging can trigger Generation Z's impulsivity when food shopping. This work contributes to existing knowledge (e.g. Bahrainizad & Rajabi, 2018; Berger & Shiv, 2011; Hansen, 2005; So et al., 2015; Zellman et al., 2010) by underlying the importance of transparent packaging within Generation Z's impulsive food shopping.

##### *Practical implications*



The insights gained from this study have a number of practical implications. For instance, this research has shown that when participants are able to see inside the packaging, an idea of authenticity, which triggers impulsive buying, is transmitted. Furthermore, transparent packaging appears to lead participants in perceiving the foods bought as more genuine, which enhances impulsivity. Finally, brand managers wanting to target Generation Z may be interested in knowing that when transparent packaging is used, participants feel capable of evaluating the content of the food bought, which in turn decreases perceived risk, enhancing trust and impulsive buying.

#### **6.2.1.5 Simplicity**

This research has also shown that perceived simplicity of food labelling triggers Generation Z's impulsive behaviour when food shopping. This study contributes to our understanding of consumers' responses (e.g. Griskevicius & Kenrick, 2013; Knoeferle et al., 2017; Petermans et al., 2014; Sebastiani & Montagnini, 2013) by shedding light on Generation Z's food-shopping behaviour.

#### *Practical implications*

These findings have significant implications for our understanding of how to trigger Generation Z's impulsive food shopping. For instance, the results of this study indicate that simple and minimal design of food labels attract participants' attention, which appears to trigger impulsive buying. Moreover, these findings suggest that the shape of packaging should be defined and clean in order to trigger participants' impulsivity. Furthermore, the font used on the packaging should be simple in order to decrease participants' confusion. Finally, brand managers wanting to target Generation Z may be interested in knowing that there is an association in participants' mind between perceived quality and simplicity, which is capable of triggering their impulsive food-shopping.

## 6.2.2 External direct triggers (distal)

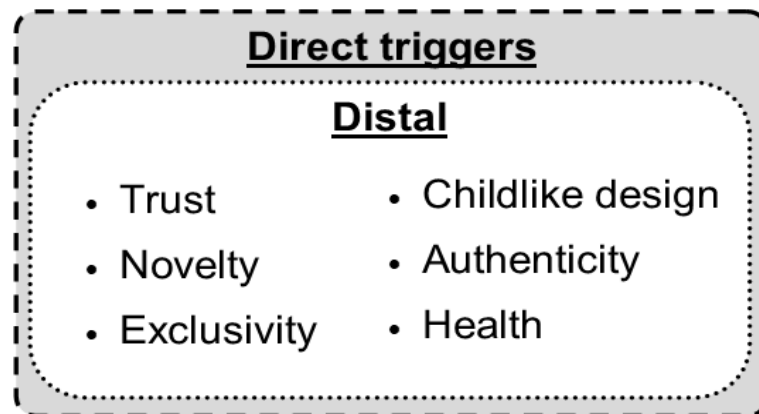


Figure 131: External direct triggers (distal)

### 6.2.2.1 Trust

The evidence from this study suggests that hedonic visual brand cues eliciting feelings of trust may trigger participants' impulsive food shopping. Although previous research has found similar results (e.g. Brodie et al., 2009; Coulter et al., 2001; Floh & Madlberger, 2013; Parayitam & Dooley, 2009; Reimann et al., 2012), the findings of this study provide a deeper insight into Generation Z's food-shopping behaviour.

#### *Practical implications*

This information can be used to develop targeted visual communication campaigns aimed at enhancing Generation Z's trust. The evidence from this study suggests that participants are more vulnerable to brands they trust. As hedonic visual brand cues eliciting trust appear to trigger positive responses, which are linked to increased impulsivity, these findings may be of interest to practitioners interested in increasing Generation Z's impulsive buying.

### 6.2.2.2 Novelty

The findings of this study suggest that hedonic visual brand cues evoking feelings of novelty are capable of triggering participants' impulsive food-shopping behaviour. This study adds to the growing body of research that indicates a

relationship between novelty seeking and elicited consumers' responses (Alba & Williams, 2013; Fiore & Kim, 2013; Griskevicius & Kenrick, 2013; Plassmann et al., 2012; Reimann et al., 2012; So et al., 2015; Xiao & Nicholson, 2013). However, the current data highlight the importance of this factor in the context of food choices made by Generation Z.

#### *Practical implications*

These findings suggest several courses of action for brand managers keen on targeting Generation Z. For instance, considering participants' willingness to be appealed to their sense of curiosity, brand managers may want to bring new or redesigned labels more often on the market. Furthermore, in light of participants' inclination to look for exciting experiences through food consumption, targeted campaigns highlighting the novelty-seeking characteristics of foods could be developed. For instance, new and fast changing recipes could be included in the food labels of the branded foods.

#### **6.2.2.3 Exclusivity**

This study has shown that hedonic visual brand cues transmitting feelings of exclusivity, sophistication and elegance can trigger Generation Z's impulsive food-shopping. This study strengthens the idea that consumers' identity can be consolidated through consumption (Fiore & Kim, 2013; Hume & Mills, 2013; Ladhari et al., 2017; Reimann et al., 2012; Xiao & Nicholson, 2013). This research adds to this growing body of research by extending these results also to Generation Z's in the context of food.

#### *Practical implications*

The findings of this study have a number of practical implications. For example, as hedonic visual brand cues transmitting exclusive feelings attract the attention of the participants, leading them to purchase impulsively, practitioners wanting to target Generation Z may include them in their visual communication. Furthermore, the results of this investigation show that visual brand cues

signalling high social status, perception of scarcity and exclusive lifestyles are significant factors capable of triggering participants' impulsive food shopping. As a result, including them in the branding of food to Generation Z may be a suitable strategy to enhance their impulsivity.

#### **6.2.2.4 Childlike design**

The evidence from this study suggests that childlike design used in food labelling can enhance participants' impulsive decisions when food-shopping. The findings of this investigation complement those of earlier studies (e.g. Almerico, 2014; Ding & Tseng, 2015; Fischer & Hills, 2012; Miesler et al., 2011; Saad, 2013) by extending their possible transferability to Generation Z.

#### *Practical implications*

An implication of this is the possibility that colourful and playful hedonic visual brand cues (i.e. as if they were drawn by a child) should be used in food labelling to enhance Generation Z's impulsive buying. The data from this investigation suggest that exposure to hedonic visual brand cues in this domain are capable of triggering positive emotions and reward-seeking. Furthermore, their attention-grabbing properties and their association with genuine food appear to be key factors in triggering Generation Z's impulsive food shopping. As a result, targeted campaigns adopting childlike designs in food labelling could be developed to increase Generation Z's food-shopping impulsivity.

#### **6.2.2.5 Authenticity**

The results of this study indicate that visual brand cues that transmit an idea of authenticity can enhance Generation Z's impulsive decisions when food shopping. Previous studies have highlighted the influence of perceived authenticity on consumers' responses (Alba & Williams, 2013; Almerico, 2014; Floh & Madlberger, 2013; Sebastiani & Montagnini, 2013). However, this result has not previously been described in the context of food choices made by Generation Z.

### *Practical implications*

Practitioners targeting Generation Z may be interested in knowing that hedonic visual brand cues eliciting authentic feelings enhance participants' trust, consequently triggering their impulsivity. Food brands that employ these cues appear more rewarding, attracting and real. Furthermore, participants exposed to these hedonic visual brand cues seem to emphasise the perceived quality of the products associated to the respective brands. As a result, this information can be used to develop targeted branding strategies aimed at Generation Z.

#### **6.2.2.6 Health**

The findings of this study suggest that hedonic visual brand cues signalling healthy food, or achieving good health through food consumption, are capable of enhancing participants' food shopping impulsivity. The findings of this investigation complement those of earlier studies (e.g. Anselmsson et al., 2014; Bredahl, 2004; Simmank et al., 2015; So et al., 2015) by providing a deeper insight into Generation Z's food shopping behaviour.

### *Practical implications*

These findings suggest several courses of action for brand managers wanting to target Generation Z. For instance, based on the findings of this research, hedonic visual brand cues related to healthy lifestyles should be employed to enhance Generation Z's impulsive purchases. Furthermore, considering the emphasised relationship between "organic" or "nothing added" cues on food labels and participants' increased impulsivity, practitioners should highlight these benefits in relevant food categories.

### 6.2.3 External indirect triggers

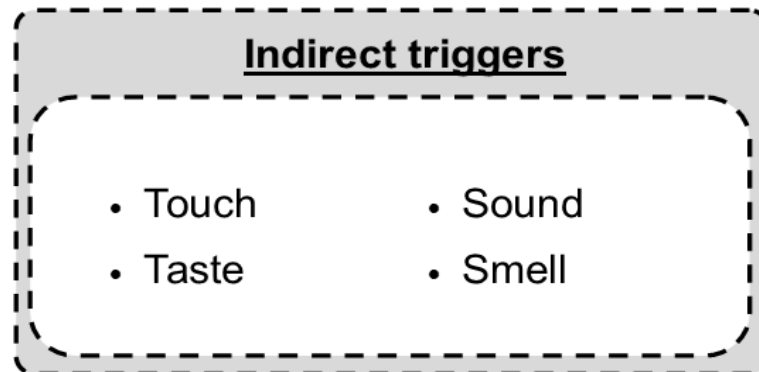


Figure 132: External indirect triggers

#### 6.2.3.1 Touch

The results of this investigation show that when participants can touch, or imagine the texture of, the desired food brand their impulsivity is enhanced. This study adds to the growing body of research that indicates that need for touch is a significant contributory factor eliciting positive consumers' responses and consequent impulsivity (Festjens et al., 2014; Fiore & Kim, 2013; Hultén, 2012; Soars, 2009). Nonetheless, this study has provided a deeper insight into the relevance of need for touch for Generation Z in the context of food.

#### *Practical implications*

These findings suggest several courses of action for those interested in targeting Generation Z. For example, considering the increased participants' vulnerability to make impulsive purchases when able to touch the wanted food brand, store layouts and communication messages could be aimed at encouraging consumers to touch the desired food. Furthermore, as participants appear capable of inferring the texture of the wanted food also by its appearance, for example when packaging prevents direct contact with the food, visual communication could be aimed at highlighting the texture of the branded food.

### **6.2.3.2 Taste**

The evidence from this study suggests that hedonic visual brand cues eliciting the memory of food taste are capable of triggering participants' impulsive food shopping. The findings of this investigation complement those of earlier studies (e.g. Alba & Williams, 2013; Festjens et al., 2014; Krishna, 2012; Plassmann et al., 2012; Strack & Deutsch, 2004). However, this result has not been previously described in the context of food choices made by Generation Z.

#### *Practical implications*

An implication of this is the possibility that Generation Z's impulsivity may be enhanced when visual brand cues are aimed at eliciting the memory of the taste of the branded foods. As participants appear capable of imagining the way in which the foods may taste from its appearance, visual messages should be aimed at highlighting the sensations that could be experienced when eating the branded foods.

### **6.2.3.3 Sound**

The research has also shown that auditory cues, either found in the shopping environment or elicited by hedonic visual brand cues, can enhance participants' impulsive food shopping. The findings reported in this research contribute to existing knowledge (e.g. Krishna, 2012; Soars, 2009; Strack & Deutsch, 2004; Xiao & Nicholson, 2013; Yorkston & Menon, 2004) by shedding new light on a different group of consumers, Generation Z.

#### *Practical implications*

The insights gained from this study may be of assistance to practitioners interested in targeting Generation Z. For instance, the evidence from this study suggests that participants' impulsivity was enhanced after exposure hedonic visual brand cues associated with auditory cues, such as brand jingles or the sounds that certain products may produce when eaten. As a consequence, brand managers should invest in communication efforts aimed at strengthening the

association between visual and auditory brand cues. Furthermore, in light of participants' decreased impulsivity when there is a lack of adequate fit between the sounds found in the shopping environment, such as music, and participants' preferences, brand managers should invest in creating appealing auditory cues found in the shopping environment.

#### **6.2.3.4 Smell**

This study has shown that the smell of food, or its memory elicited by the related hedonic visual brand cues, can trigger participants' impulsive food-shopping. The results of this research support the idea that olfactory cues can have positive influences on consumers' responses (Berger & Shiv, 2011; Krishna, 2012; Krishna et al., 2010; Soars, 2009; Trevisan, 2013). This thesis, however, has provided a deeper insight into Generation Z's impulsive shopping in the food domain.

##### *Practical implications*

These findings suggest several courses of action to target Generation Z. For example, considering participants' increased emotional involvement when exposed to olfactory cues, especially for fresh foods and bakery products, brand managers could enhance Generation Z's shopping experiences by facilitating the spread of related smells in the shopping environment. Another practical implication, in light of participants' ability to infer the smell of specific foods from the way these foods looked, would be to develop food packaging that engages with consumers' sense of smell.



## 6.2.4 Internal direct triggers (proximal)

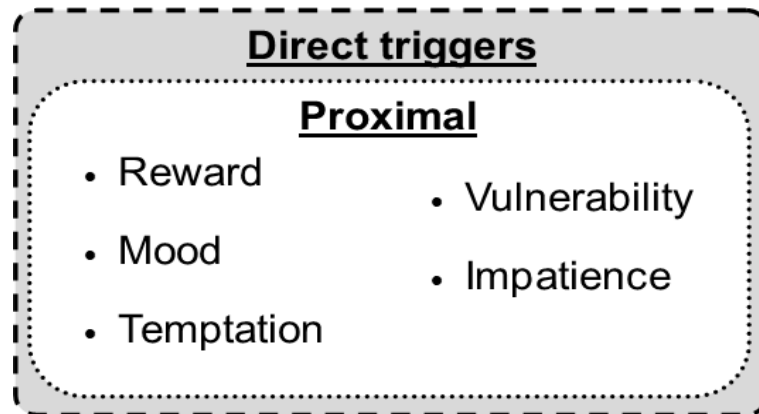


Figure 133: Internal direct triggers (proximal)

### 6.2.4.1 Reward

The results of this investigation show that there is an association between participants' tendency to buy impulsively and reward-seeking. The findings of this investigation complement those of earlier studies highlighting the significant role of reward-seeking within consumer behaviour (Alba & Williams, 2013; Chang et al., 2011; Fenton-O'Creevy & Furnham, 2019; Festjens et al., 2014; Floh & Madlberger, 2013; Luo et al., 2014; Murawski et al., 2012; Simmank et al., 2015; Zhang, Xu, Zhao, & Yu, 2018). However, this result has not previously been described in the context of food choices made by Generation Z.

#### *Practical implications*

Considering that in this research exposure to hedonic visual brand cues can trigger participants' reward-seeking, which in turns enhances impulsive buying, gratifying and satisfying visual communications to engage Generation Z could be used. Moreover, since in this research reward proximity appears capable of bypassing cognitive control activating reward-triggering mechanisms, practitioners should prioritise hedonic and experiential visual messages rather than functional ones. Finally, brand managers may be interested in knowing that members of Generation Z feel rewarded when are capable of treating themselves through impulsive food shopping.

#### **6.2.4.2 Mood**

The evidence from this study suggests that participants' moods, also altered due to hedonic visual brand cues exposure, has an impact on their impulsive purchases. Other studies are consistent with the findings of this research (e.g. Bahrainizad & Rajabi, 2018; Hsu & Yoon, 2015; Hultén & Vanyushyn, 2011; Hultén et al., 2013; Oliveira et al., 2014) but have been conducted with different generations and not in the food domain. As a consequence, the results of this research strengthen their transferability within Generation Z's impulsive food buying.

#### *Practical implications*

The findings of this study have a number of implications for future practice. For instance, practitioners may be interested in knowing that the reason why participants make impulsive purchases when having a positive mood is to extend it through consumption. On the other hand, participants purchasing food impulsively while having a negative mood appear to have a willingness to minimise that state through consumption. Finally, considering the pursuit of happiness through impulsive food shopping found in this study, brand managers targeting Generation Z should invest in developing mood-boosting communication strategies.

#### **6.2.4.3 Temptation**

These findings suggest that participants' inability to resist temptation when exposed to hedonic visual brand cues can lead to increased impulsive purchases. These findings provide support for the conceptual premise that decreased willpower can lead to consumers' inability to resist temptation (Lucas & Koff, 2017; Mukhopadhyay et al., 2008; Murawski et al., 2012; Wertenbroch et al., 2008). Nevertheless, this result has not previously been described in the context of food choices made by Generation Z.

### *Practical implications*

This finding has significant implications for developing targeted content for enhancing Generation Z's impulsive buying. For instance, considering participants' willingness to increase their self-control despite acknowledging they will likely fail, communication messages should attempt to decrease consumers' feelings of regret. Furthermore, in light of participants' acknowledgment of the temporary nature of reward originating from impulsive purchases, brand messages should highlight the importance of living in the present rather than worrying about future consequences.

#### **6.2.4.4 Vulnerability**

The findings of this study suggest that the influence of hedonic visual brand cues on participants' impulsivity is enhanced when participants feel vulnerable. This study contributes to existing knowledge (e.g. Higgins, 2006; Hofmann et al., 2008; Lo, Lin, & Hsu, 2016; So et al., 2015; Volkow et al., 2011) by highlighting this factor within Generation Z's choices in the food context.

### *Practical implications*

The insights gained from this study may be of assistance to brand managers keen on increasing Generation Z's food shopping impulsivity. Based on this research, participants' vulnerability, and consequent likelihood to buy impulsively, are increased when they feel: down, hungry, bored, sad, frustrated, insecure and, above all, stressed. As a result, communication strategies should be created around the idea of reducing negative feelings through consumption of food. For example, food packaging, labels and other visual communication could include relevant messages to alleviate the abovementioned negative states.

#### **6.2.4.5 Impatience**

The results of this study indicate that exposure to hedonic visual brand cues can trigger impatience in participants, consequently increasing their likelihood of impulsive food shopping. This study adds to the growing body of research that

indicates an association between impatience and impulsive behaviour (Aragoncillo & Orús, 2018; Festjens et al., 2014; Floh & Madlberger, 2013; Luo et al., 2014; Schultz, 2015; Simmank et al., 2015; Xiao & Nicholson, 2013). In contrast to earlier findings, however, this research further extends this link to Generation Z within the food domain.

### *Practical implications*

The findings of this study have a number of practical implications. For example, brand managers may be interested in knowing that participants feel more impatient when are exposed to rewarding brand cues. Furthermore, if participants are under time pressure, they are more likely to make impulsive purchases. Specifically, if participants think, rather than act, impulsive buying appears minimised. Finally, participants need for instant gratification leads them to wanting to eat the desired products as soon as possible.

## **6.2.5 Internal direct triggers (distal)**

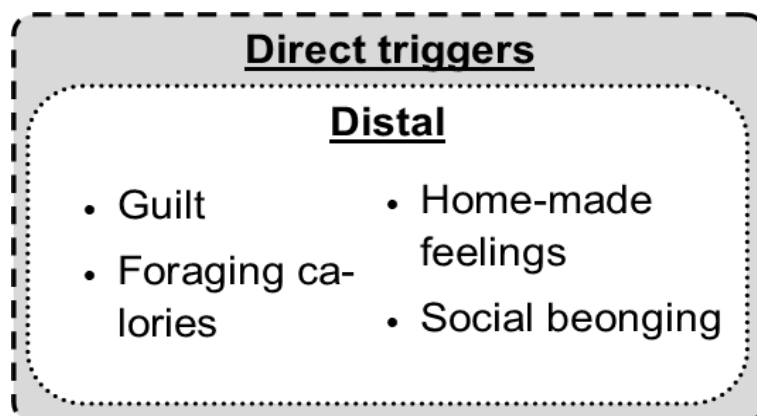


Figure 134: Internal direct triggers (distal)

### **6.2.5.1 Guilt**

The research has also shown that participants' impulsive food shopping is enhanced when associated feelings of guilt are minimised. These findings provide support for the conceptual premise that guilt is associated with negative consumers' emotions (Krishna, 2012; Palazon & Delgado-Ballester, 2013;

Zellman et al., 2010; Silvera & Lavack, 2008; So et al., 2015; Togawa et al., 2019; Tuan Pham, 2004; Young et al., 2013). This thesis, however, has provided a deeper insight into the role of guilt within Generation Z's impulsive food buying.

#### *Practical implications*

This information can be used to develop targeted messages aimed at decreasing Generation Z's feelings of guilt when food shopping. Specifically, based on the result of this study, communication messages should be built around minimising concerns about: health risks, lack of control, gluttony, increase in body weight and money over expenditure.

#### **6.2.5.2 Foraging calories**

The evidence from this study suggests that a need for highly caloric food, and related visual brand cues, can enhance participants' impulsive food shopping. The findings of this investigation complement those of earlier studies (e.g. Alba & Williams, 2013; Brogan et al., 2010; Bryant et al., 2007; Garg & Lerner, 2013; Hays & Roberts, 2008) but strengthen their validity also within Generation Z's impulsive food shopping.

#### *Practical implications*

These findings have important implications for developing visual communication messages enhancing Generation Z's impulsive food shopping. For example, considering the attention-grabbing properties of images showing highly caloric foods found in this research, such as desserts, cakes, chocolate and unhealthy snacks, visual communication should focus on highlighting the highly caloric intake of the branded foods. Moreover, branding messages should emphasise the possible reward consumers could experience when consuming the branded food.

### **6.2.5.3 Home-made feelings**

The results of this study indicate that participants' impulsivity is enhanced when they feel emotionally engaged as a result of exposure to hedonic visual brand cues that transmit home-made feelings. Other studies are aligned with data obtained in this research (e.g. Ding & Tseng, 2015; Ladhari et al., 2017; Reimann et al., 2012; So et al., 2015) but have not focused on Generation Z. Therefore, this study proves beneficial in providing deeper insights into Generation Z's food-shopping impulsive behaviour.

#### *Practical implications*

The insights gained from this study may be of assistance to practitioners interested in targeting Generation Z. For instance, considering participants' increased impulsivity when foods appear home-made, which in this research appear associated to food made with love, related visual cues should be used in communication efforts. Furthermore, based on the findings of this study, food packaging and labels should be designed with the aim of transmitting love through food.

### **6.2.5.4 Social belonging**

The results of this investigation show that participants' impulsivity is enhanced when they are exposed to hedonic visual brand cues related to social belonging. These results add to the expanding field of consumer studies (e.g. Atulkar & Kesari, 2018; Chang et al., 2011; Millan & Diaz, 2014; Schau et al., 2009; Xiao & Nicholson, 2013) by providing deeper insights into Generation Z's impulsive buying in the context of food.

#### *Practical implications*

The findings of this study have a number of implications for future practice. For instance, practitioners could include hedonic visual brand cues themed around the idea of using food as a tool for socialisation. Moreover, promotional messages showing food shared with friends, partners and family members should be used

to enhance Generation Z's impulsivity. Finally, brand managers may be interested in knowing that Generation Z's impulsive food shopping is triggered by aspired end states of bonding and establishing group membership.

### 6.2.6 Internal indirect triggers

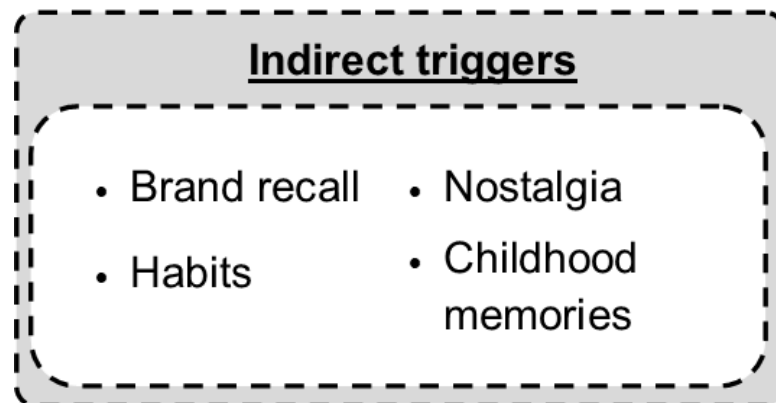


Figure 135: Internal indirect triggers

#### 6.2.6.1 Brand recall

This study has found that brand recall after participants are exposed to related hedonic visual brand cues can enhance their impulsivity. The findings of this investigation complement those of earlier studies (e.g. Floh & Madlberger, 2013; Plassmann et al., 2012; Rangel et al., 2008; Reimann et al., 2012; Schultz, 2015) highlighting their importance also within Generation Z's impulsive food shopping.

#### *Practical implications*

The findings of this study have a number of practical implications. For instance, brand managers may be interested in knowing that familiarity with the brand, after exposure to promotional messages or trial of the branded food, decreases perceived risks, consequently enhancing participants' impulsive purchases. As a result, practitioners should invest in building brand awareness and trial if impulsive purchases within Generation Z wish to be increased. Furthermore, recalling the brand and/or related promotional messages during consumption, such as slogan, taste, place of consumption or emotion felt, can lead to increased

impulsivity. Therefore, broadcasted communication messages and hedonic visual brand cues on the food packaging should be aimed at transmitting the same message to facilitate brand recall.

#### **6.2.6.2 Habits**

These findings suggest that the shopping habits of participants, and visual brand cues associated to them, can trigger participants' impulsive buying. These findings provide support for the conceptual premise that consumers' habits influence their purchase behaviour (Floh & Madlberger, 2013; Hofmann et al., 2008; Moayeri et al., 2019; Muniz & O'Guinn, 2001; Sebastiani & Montagnini, 2013; Seo & Gao, 2015). In contrast to earlier findings, however, this research further extends the link between shopping habits and Generation Z's impulsivity within the food domain.

#### *Practical implications*

The insights gained from this study may be of assistance to practitioners wanting to target Generation Z. For instance, considering participants' acknowledgment that their habits affect their impulsive decision, both consciously and unconsciously, brand managers may want to use visual communication that reminds consumers of their shopping habits if impulsive purchases wish to be maximised.

#### **6.2.6.3 Nostalgia**

The results of this investigation show that hedonic visual brand cues eliciting feelings of nostalgia can trigger participants' food shopping impulsivity. The findings of this investigation complement those of earlier studies (Alba & Williams, 2013; Fiore & Kim, 2013; Krishna, 2012; Luo et al., 2014). Nevertheless, these findings provide support for the conceptual premise that also Generation Z's food-shopping behaviour is influenced by nostalgic feelings.



### *Practical implications*

The insights gained from this study may be of assistance to practitioners targeting Generation Z. For instance, considering the increased emotional engagement of the participants of this research once nostalgic feelings were triggered, brand managers should integrate relevant hedonic visual brand cues in their communication efforts in order to increase impulsive purchases. Specifically, according to the results of this investigation, the following factors appear to trigger nostalgic feelings: separation from home, Christmas, family, typical foods eaten at home and parental love.

#### **6.2.6.4 Childhood memories**

The findings of this study suggest that childhood memories elicited by hedonic visual brand cues in the shopping environment can enhance participants' food-shopping impulsivity. This work contributes to existing knowledge (e.g. Bruce et al., 2014; Hemar-Nicolas et al., 2013; Higgins, 2006; Spear, 2011; Strack & Deutsch, 2004) by providing a deeper insight into Generation Z's impulsive food shopping.

### *Practical implications*

The findings of this study have a number of implications for future practice. For example, brand managers targeting Generation Z may be interested in knowing that participants' upbringing and recall of previous experiences can enhance Generation Z's impulsive food-shopping. Furthermore, from the findings of this research, it appears that participants have the willingness to experience again their childhood through food consumption, which can lead them to buy the related food impulsively. Finally, considering participants' awareness that disappointment may occur as a result of the discrepancy between their memory of the food and the actual food, communication messages should be aimed at reducing this gap.

## 6.2.7 Causal mechanisms

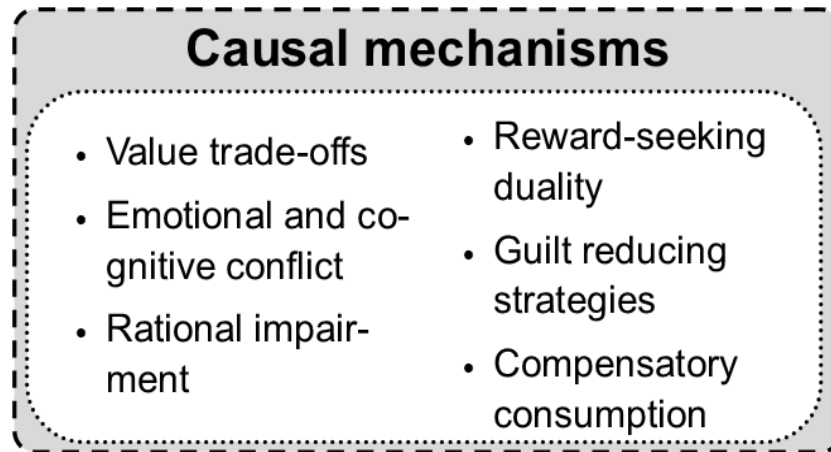


Figure 136: Causal mechanisms

### 6.2.7.1 Value trade-offs

This study has shown that participants make value trade-offs when purchasing food impulsively. Furthermore, the results of this investigation indicate that participants' exposure to hedonic visual brand cues enhances their perception of positive ratios, consequently triggering impulsive buying. Previous studies have highlighted the role of this mechanism within consumers choices (Brodie et al., 2009; Hansen, 2005; Seo & Gao, 2015; Whittaker, Ledden, & Kalafatis, 2007). The analysis of this phenomenon undertaken here, however, has extended our knowledge of Generation Z's impulsive food shopping.

#### *Practical implications*

The findings may be of interest to practitioners interested in knowing how to increase Generation Z's impulsivity when food shopping. Specifically, these data suggest that impulsivity can be triggered when the perceived gains (e.g. gratification) exceed the perceived losses (e.g. guilt). As a result, communication messages should be aimed at creating positive value ratios. The evidence from this study suggests that particular attention should be given to minimise health-related risks, financial losses and increased body weight.

### **6.2.7.2 Emotional and cognitive conflict**

The research has also shown that emotions and cognition affect participants' impulsive decisions. Specifically, when participants feel emotionally involved after hedonic visual brand cues exposure, they are more likely to make impulsive food-shopping decisions. The findings of this investigation complement those of earlier studies (e.g. Bruce et al., 2014; Ding & Tseng, 2015; Esch et al., 2012; Parayitam & Dooley, 2009; Reimann et al., 2012; Sofi, 2018) by shedding light on Generation Z's food-shopping behaviour.

#### *Practical implications*

This finding has significant implications for developing communication messages meaningful for Generation Z. For instance, considering participants' awareness of their cognitive and emotional aspects of decision-making, communication messages should be aimed at engaging both facets to maximise the probability of impulsive buying. As participants recognise their inability to control emotions expressing their intention of exerting better control over future purchase behaviour, brand managers should highlight the importance of living the moment. Finally, in light of participants' justification of impulsive food shopping when balanced with more rational purchases, practitioners could build promotional campaigns centred on the idea of indulging in moderation.

### **6.2.7.3 Rational impairment**

The evidence from this study suggests that rational impairment caused by hedonic visual brand cues exposure can enhance participants' food-shopping impulsivity. This study adds to the growing body of research that indicates that emotional reactions prevail when cognition is impaired (e.g. Aragoncillo & Orús, 2018; Etkin & Sela, 2015; Hofmann et al., 2008; Klein, 2014; Parayitam & Dooley, 2009; Shiv & Fedorikhin, 1999). Nonetheless, this result has not previously been described in the context of food choices made by Generation Z.

### *Practical implications*

Considering that thinking longer increases rational control over behaviour, communication messages aimed at decreasing the time spent thinking about the purchase may enhance Generation Z's impulsive buying. Moreover, based on the research findings, planning the food purchases or creating shopping lists should be discouraged through communication strategies if impulsive purchases wish to be maximised.

#### **6.2.7.4 Reward seeking duality**

The research has also shown that when participants buy food impulsively, they are influenced by a coexisting dichotomy: a need to reward themselves versus the acknowledgment that potentially negative consequences may follow. This study strengthens the idea that both impulsive and reflective mechanisms affect consumers choices (Floh & Madlberger, 2013; Hofmann et al., 2008; Moayery et al., 2019; Reimann et al., 2012; Xiao & Nicholson, 2013; Zheng et al., 2019). Nonetheless, this research contributes to existing knowledge by proving this mechanism within Generation Z.

### *Practical implications*

An implication of this is the possibility that Generation Z's impulsive food-shopping could be enhanced by highlighting the rewarding properties of treating oneself through food consumption. Considering participants' feelings of regret following impulsive purchases, another important practical implication would be to create communication messages aimed at minimising possible perceived negative consequences of impulsive food-shopping.

#### **6.2.7.5 Guilt reducing strategies**

The results of this study indicate that when participants are capable of finding strategies to reduce the guilt originating from impulsive food-shopping, they are more likely to purchase food impulsively. This study is consistent with previous observations (Ding & Tseng, 2015; Festjens et al., 2014; Garg & Lerner, 2013;

Ladhari et al., 2017; Mittal et al., 2016; Togawa et al., 2019; Xiao & Nicholson, 2013; Zellman et al., 2010). However, the current data highlight the importance of this mechanism in the context of food choices made by Generation Z.

#### *Practical implications*

The findings of this study have a number of implications for future practice. Specifically, the results of this study indicate that the following mitigating factors can minimise participants' guilt: feeling like one deserves to indulge; small packaging; others doing the same; lack of energy and compensating with physical activities. As a result, communication efforts containing these messages should be used to decrease Generation Z's perceived guilt, consequently increasing the likelihood of them making impulsive purchases.

#### **6.2.7.6 Compensatory consumption**

The results of this investigation show that participants' food-shopping impulsivity is increased when they feel entitled to compensate negative states. Furthermore, according to this research, consummatory mechanisms leading to impulsive buying can be triggered by hedonic visual brand cues exposure. This study contributes to our understanding of consumers' responses (e.g. Festjens et al., 2014; Garg & Lerner, 2013; Lucas & Koff, 2017; Mittal et al., 2016; Xiao & Nicholson, 2013; Zellman et al., 2010) by shedding light on Generation Z's food-shopping behaviour.

#### *Practical implications*

This information can be used to develop targeted messages to trigger Generation Z's impulsivity when food shopping. Specifically, the evidence from this study suggests that the following factors can trigger consummatory mechanisms leading to impulsive buying: negative events or moods, stress, bad days, emotional distress, sadness, studying long hours, hard work, failures, personal problems, bad experiences, breakups, not feeling appreciated and loneliness. As

a consequence, communication efforts built around these factors could be used to increase Generation Z's impulsive buying.

### 6.3 Summary table

The table below provides a definition of each of the identified causal factors and mechanisms in order to clarify key similarities and differences in relation to the conceptual framework.

<b>Categorisation</b>	<b>Causal factors and mechanisms</b>	<b>Definition</b>
External direct trigger	Attractive packaging	Attractive food packaging capable of catching participants' eyes and attention
	Appealing presentation	Appealing presentation of products and appealing shopping environment
	Colours fit	Fit between the products bought impulsively and the colours used in labels
	Transparency	Transparent packaging enabling evaluation of the food content
	Simplicity	Simplicity of label design, shape of packaging and font used
	Trust	Trustworthy packaging eliciting feelings of trust and reliability
	Novelty	Novel packaging triggering participants' curiosity and willingness to try new food
	Exclusivity	Food packaging symbolising exclusivity, elegance and sophistication
	Childlike design	Childlike and playful design of labels (as if they were drawn by a child)

	Authenticity	Authentic food packaging symbolising tradition and eliciting feelings of trust
	Health	Food packaging signalling healthy food, organic food and 'nothing added' food
External indirect trigger	Touch	Inferred food texture following visual brand cue exposure
	Taste	Inferred food taste following visual brand cue exposure
	Sound	Inferred food sound following visual brand cue exposure
	Smell	Inferred food smell following visual brand cue exposure
Internal direct trigger	Reward	Participants' willingness to reward themselves through impulsive food buying
	Mood	Participants' willingness to improve their mood through impulsive food buying
	Temptation	Participants' inability to resist temptation and exert self-control
	Vulnerability	Participants' vulnerability caused by negative events in their lives
	Impatience	Participants' impatience to obtain the desired food
	Guilt	Participants' guilt related to negative consequences of impulsive food buying
	Foraging calories	Participants' willingness to consume highly caloric food
	Home-made feeling	Participants' willingness to consume food that appears home-made
	Social belonging	Participants' willingness to socialise through food consumption

Internal indirect trigger	Brand recall	Participants' degree of familiarity with the food brand
	Habits	Participants' habitual and repeated purchases of the food brand
	Nostalgia	Participants' nostalgic feelings linked to home separation, family and parental love
	Childhood memories	Participants' memories of their upbringing and childhood
Causal mechanism	Value trade-offs	Trade-offs between positive and negative values during impulsive food buying
	Emotional and cognitive conflict	Rational and emotional aspects of participants' decision-making influencing impulsive food buying
	Rational impairment	Participants' inability to exert rational control over impulsive food buying
	Reward-seeking duality	Coexisting duality of reward-regret experienced by participants during impulsive food buying
	Guilt reducing strategies	Participants' ability to minimise feelings of guilt when purchasing impulsively
	Compensatory consumption	Participants' willingness to compensate for negative events through impulsive food buying

Table 45: Summary table

As shown in the table above, although both childlike design and childhood memories are related to children, childlike design is referred to the packaging and labels while childhood memories are related participants' memories of their upbringing. Furthermore, both childhood memories and nostalgia are related to childhood experiences. Nevertheless, childhood memories are related to participants' upbringing, while nostalgia is linked to home separation, family and parental love. Moreover, both reward and reward-seeking are related to reward experienced by participants. However, reward is referred to the hedonic involvement of participants, while reward-seeking duality refers to the dichotomy



reward-regret experienced by participants during impulsive food buying. Additionally, both guilt and guilt reducing strategies are related to feelings of guilt experienced by participants. Nonetheless, guilt refers to negative feelings related to perceived negative consequences of impulsive food buying, while guilt reducing strategies consist in ways in which participants minimise feelings of guilt when purchasing impulsively. Finally, both vulnerability and compensatory consumption are linked to negative events in participants' lives. However, vulnerability refers to participants' vulnerability caused by negative events in their lives, while compensatory consumption is a mechanism that participants use to compensate for these negative events.

#### **6.4 Methodological contribution**

The methodology adopted in this research consisted of a triangulated multi-method qualitative approach: participant observation of purchase behaviour, semi-structured interviews aided by photo elicitation and projective techniques, and online conversations via social media. As discussed in the literature review, the majority of the studies examining consumer responses are quantitative and, despite proving effective in analysing the 'what' question, may lack of enough depth to gain a holistic understanding of consumers' behavioural responses. As a result, a qualitative case study was adopted to allow a deeper insight into not only the 'what', but also into the 'how' and the 'why' participants purchase impulsively after hedonic visual brand cues exposure (Miles et al., 2014; Yin, 2014). This method was particularly useful to capture the complexities of the phenomenon studied, as multiple lines of theoretical and empirical evidence have been triangulated to increase the findings trustworthiness (Fusch & Ness, 2015; Tracy, 2010; Trotter, 2012; Zellman et al., 2010). This methodology has been the first attempt to thoroughly examine consumers' responses in the food context through the abovementioned combination of qualitative methods. Although each method has been used independently, the contribution of this research consists in combining the following qualitative methods underpinned by critical realism to provide a comprehensive assessment of consumer responses.

Specifically, observation of participants' behaviour within the shopping environment was the first method used in this investigation. The benefit of this approach was that it allowed the researcher to study participants' behaviour directly rather than inferring it from their responses (Fusch & Ness, 2015; Kpossa & Lick, 2020; Malterud et al., 2016; Sebastiani et al., 2013). Furthermore, this method was particularly useful in studying the context of the investigation. Another advantage of using observation was that it allowed the research participants to familiarise with the researcher, which in turn improved the findings trustworthiness and credibility. Finally, adopting this method provided rounded, detailed illustrations of the emerging themes of this research, which enabled a refinement of the interview questions aimed at probing these themes (Liamputtong, 2013; Saunders et al. 2016; Yin, 2014).

The second method adopted in this research was semi-structured interviews with photo elicitation and projective techniques (appendix 8.2). Interviews were particularly suited for case study research and offered an effective way of obtaining further in-depth information on the studied phenomenon (Edwards et al., 2014; Kvale, 2013; Sotodehasl et al., 2019; Zikmund et al., 2012). Furthermore, interviews were combined with informant-driven visual prompts, which were used during the interviews in order to explore participants' experiences and mental associations (Koles et al., 2018; Parker, 2009; Steyaert, Marti, & Michels, 2012; Venkatraman & Nelson, 2008; Warren, 2009; Zellman et al., 2010). Finally, projective techniques were integrated in the interview in order to enhance elicitation and facilitate participants to externalise their conscious and unconscious feelings (Bond & Ramsey, 2010; Hume & Mills, 2013; Doherty & Nelson, 2010; Donoghue, 2010; Kpossa et al., 2019; Malhotra, 2009).

The last method used in this research was participants-driven diaries through social media (Facebook Messenger or WhatsApp). The use of diaries is a well-established approach in the literature (Flick, 2008; Kozinets, 2006, 2015; Prior, 2011). Nevertheless, they have been adopted in this research to gain additional understanding of participants' causal factors and mechanisms affecting their

impulsive purchases when food shopping (Fenton-O’Creevy et al., 2018; Koles et al., 2018). The benefit of this approach included: absence of geographical barriers, speed of interaction, enhanced engagement of tech-savvy participants and improved analysis of participants’ lived experiences and motivations (Gaiser & Schreiner, 2009; Kozinets, 2015; Strickland et al., 2003).

The triangulated qualitative data obtained from the three abovementioned methods have proved useful in identifying and exploring the nature of the causal factors and mechanisms influencing Generation Z’s impulsive buying when food-shopping. Once the first set of themes were created from the observation data, a preliminary understanding of the studied phenomenon was achieved. Furthermore, this process gave the researcher thematic rationale to refine the other methods used as well as themes identified. Triangulating the identified themes with the other sources of evidence adopted in this research, as well as comparing and contrasting them with existing literature, allowed an in-depth understanding of the investigated phenomenon, which would have been unfeasible otherwise. As a result, this methodology establishes an innovative qualitative approach underpinned by critical realism for detecting and exploring causal factors and mechanisms influencing consumer responses. The triangulated multi-method qualitative approach used in this study may be applied to other contexts, or with different generations, in order to capture the complexities of the studied phenomena.

## **6.5 Limitations and future research**

Every research has limitations, and this research is no exception. The research design of this investigation consisted of a case study research method with multiple sources of evidence: observation of participants behaviour, interviews with photo elicitation and projective techniques and online communication via social media. This approach, despite providing an in-depth understanding of the chosen phenomenon of study, focused only on the food context. As a result, in order to enhance the transferability of the research findings, future research could examine Generation Z’s impulsive buying in other contexts or industries.

Furthermore, recent attention in the literature has focused on impulsive behaviour in an online shopping environment (Aragoncillo & Orus, 2018; Chan et al., 2017; Santini et al., 2019; Zhang et al., 2018; Zheng et al., 2019). This research, despite providing a detailed understanding of Generation Z's impulsive behaviour in an offline context, is limited in terms of its transferability online. Therefore, a natural progression of this work would be to test the transferability and confirmability of these research findings in an online shopping environment. Moreover, although this research was based on data collected over a long period of time (6 months), it was not built around a standard longitudinal design. As a result, further work could focus on determining whether the causal factors and mechanisms affecting Generation Z's impulsive food shopping are affected by changes over time.

As this study adopts a case study design grounded on critical realism, the transferability of findings is bounded by analytical generalisations rather than statistical generalisation. Analytical generalisation is concerned with comparing empirical data with theoretical propositions while statistical generalisation focuses on comparing empirical data with the wider population (Barlow, Nock, & Hersen, 2009; Yin, 2014). As a result, a granular in-depth understanding of the studied phenomenon was prioritised. Nonetheless, further work could be carried out to establish the statistical generalisability of these research findings to Generation Z or, in fact, different generations, cultures or consumers' segments. Similarly, further research could also be conducted to determine whether awareness of the causal factors and mechanisms at play could enable Generation Z to minimise or control their impulsive food shopping.

Moreover, considering this study focused on the 'how' and 'why' questions, rather than only the 'what' question, a qualitative methodology was adopted. Although qualitative data are better suited to gain an in-depth insight of the studied phenomenon, qualitative researchers are entirely absorbed in the process of investigation as well as in the analysis of the findings (Alvesson & Sköldberg, 2009; Bhaskar, 1975; Gordon & Langmaid, 1993; Miles, Huberman and Saldana 2014; Myers, 2008). In order to minimise potential bias, multiple sources of

evidence were triangulated but further work could be carried out to determine the findings trustworthiness. For example, the developed model could be tested through a quantitative approach. Furthermore, additional research would be needed to establish the relationship between causal factors and mechanisms.

Although this research provided rounded, detailed illustrations of impulsive behaviour from the consumer perspective, it is limited by the lack of information on the organisational perspective. As a result, this would be a fruitful area for further work as including practitioners, as well as personnel within the retail environment, may provide a rich perspective on the studied phenomenon. Furthermore, in spite of the emphasis of this study on consumers' sensorial engagement during the shopping experience, this investigation has been primarily focused on the visual aspect of hedonic brand cues. As a result, further work is needed to fully understand the impact and interaction of the other senses on Generation Z's impulsive food shopping.

## **6.6 Summary**

The final chapter has concluded the study discussing how the aim and objectives of this investigation have been met. This chapter has also shown the way in which this study has extended our knowledge of the causal factors and mechanisms affecting Generation Z's impulsive food buying. Furthermore, practical recommendations to help practitioners in refining their brand strategies have been provided. Moreover, the methodological contribution of this research has been discussed. Finally, the limitations of this study and related avenues for future research have been examined.

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## 8 Appendices

### 8.1 Appendix 1

<b>Emerged themes from the literature</b>	<b>Authors</b>	<b>Interview questions</b>
<p><b>Stimulus</b></p> <p>Hedonic brand cues</p>	<p>(Aharon et al., 2001; Alba &amp; Williams, 2013; Anselmsson et al., 2014; Apaolaza-Ibáñez et al., 2011; Berger &amp; Shiv, 2011; Berridge &amp; Aldridge, 2008; Berridge et al., 2009; Brakus et al., 2009; Chang &amp; Chieng, 2006; Dhar &amp; Wertenbroch, 2000; Ding &amp; Tseng, 2015; Earl &amp; Kemp, 2013; Erk et al., 2002; Esch et al., 2012; Griskevicius &amp; Kenrick, 2013; Hofmann et al., 2008; Kang &amp; Park-Poaps, 2010; Murawski et al., 2012; Plassmann et al., 2012; Ramanathan &amp; Menon, 2006; Schaefer &amp; Rotte, 2007a, 2007b; Shiv &amp; Fedorikhin, 1999; Simmons et al., 2005; Tetley et al., 2010; Tifferet &amp; Herstein, 2012; Volkow et al., 2011; Zhong &amp; Mitchell, 2010)</p>	<p>2 – 3 – 4 – 5 – 7 – 8 – 9 – 18 – 19 – 23 – 29</p>



<p><b>Organism</b></p> <p>Consumer's decision-making</p>	<p>(Bagozzi et al., 1999; Deppe et al., 2005; Dhar &amp; Wertenbroch, 2000; Foxall, 2010; Hansen, 2005; Hsu &amp; Yoon, 2015; Kable &amp; Glimcher, 2007; Luo et al., 2014; Martin &amp; Morich, 2011; Palazon &amp; Delgado-Ballester, 2013; Parayitam &amp; Dooley, 2009; Plassmann, Kenning, et al., 2008; Shiv &amp; Fedorikhin, 1999; Simonson, 2005; So et al., 2015; Tetley et al., 2010; Van den Bergh et al., 2008; Wertenbroch et al., 2008)</p>	<p>3 – 10 – 11 – 12 – 13 – 15 – 16 – 17 – 18 – 22 – 24 – 26</p>
<p><b>Response</b></p> <p>Impulsive food buying</p>	<p>(Baumeister, 2002; Berlin, 2004; Chang et al., 2011; Chaudhary, 2018; Festjens et al., 2014; Floh &amp; Madlberger, 2013; Hausman, 2000; Hofmann et al., 2008; Hultén &amp; Vanyushyn, 2011, 2014; Joo Park et al., 2006; Kable &amp; Glimcher, 2007; Kacen &amp; Lee, 2002; Luo et al., 2014; Mihic &amp; Kursan, 2010; Mukhopadhyay et al., 2008; Pentecost &amp; Andrews, 2010; Prashar et al., 2015; Puri, 1996; Ramanathan &amp; Menon, 2006; Reimann et al., 2012; Rook &amp; Fisher, 1995; Silvera et al., 2008; Tetley et al., 2010; Tifferet &amp; Herstein, 2012; Xiao &amp; Nicholson, 2013)</p>	<p>1 – 3 – 5 – 6 – 7 – 8 – 11 – 14 – 16 – 21 – 25 – 27 – 28</p>

## 8.2 Appendix 2

<b>1) Word association (to read)</b>	
<b>Interviewer:</b>	<b>Please tell me the first word that comes to your mind when you think about:</b> Impulsive food shopping Hedonic images Impatience What else caught your attention during observation?
<b>Interviewer:</b>	<b>Why?</b>
<b>Interviewee:</b>	

<b>2) Brand personification (to read)</b>	
<b>Interviewer:</b>	<b>A) Among the images that you have selected, which one is the most rewarding?</b> <b>B) If the brand represented in this picture were a person, how would they be?</b> You could describe their gender, dress code, personality traits, car driven, job, social class, house, social skills, et cetera...
<b>Interviewer:</b>	<b>Why?</b>
<b>Interviewee:</b>	

**3) Sentence completion (to give)**

**Please leave blank the ones that you believe are irrelevant**

Rewarding images make people feel...

People feel attracted by rewarding images because...

Stressful or sad days make people buy...

Some people feel guilty when they buy on impulse because...

Colourful and playful packaging design is...

Food shopping under time pressure makes people buy...

Social judgment when food shopping affects some people because...

Positive mood affects people's food shopping behaviour by making them buy...

Negative mood affects people's food shopping behaviour by making them buy...

When food shopping, some people get carried away because...

When people buy food on impulse feel...

Images that transmit an idea of food 'made with love' make people feel...

If some people really like something, they find it very difficult to leave without buying it because...

Childhood memories evoked by certain images when food shopping make people buy...

Elegant and minimal design of food packaging may be appealing because...

If some people like a product, they may feel impatient to have it because...

People who shop food on impulse make me feel...

In my opinion, some people see food shopping as a leisure activity because...

Some people buy food impulsively because...

Certain conditions such as.....make some people buy impulsively.

Recalling an ad during food shopping may trigger people's impulsivity because...

When people feel more vulnerable as a consequence of..... they buy .....

Interviewer

Is there anything you would like to add or discuss? Why/How does **x** influence **y**?

<b>4) Sorting task (to read)</b>	
<b>Interviewer:</b>	Please group your images according to meaningful criteria, label them and describe each group.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

<b>5) Picture-response (to read)</b>	
<b>Interviewer:</b>	Please describe the content of the 3 most significant pictures you have chosen explaining how they relate to your impulsive buying.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

<b>6) Missed images (to read)</b>	
<b>Interviewer:</b>	Please describe the content of an ideal image that would trigger your impulsivity but you could not find.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

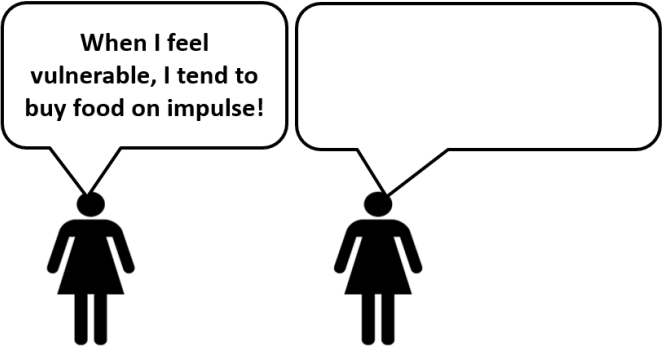
<b>7) Construct elicitation (to read)</b>	
Let's select 3 random pictures from your collections. Is there any similarities or differences among them? How are these two similar to each other and different from the third? Do you think it is an important factor in relation to impulsive buying?	
<b>Interviewer:</b>	Why do you think that x is important?
<b>Interviewee:</b>	Because <b>x...</b>
<b>Interviewer:</b>	And why do you think people consider <b>x</b> important?
<b>Interviewee:</b>	Because <b>y...</b>
<b>Interviewer:</b>	And why do you think people consider <b>y</b> important?
<b>Interviewee:</b>	<b>z</b>

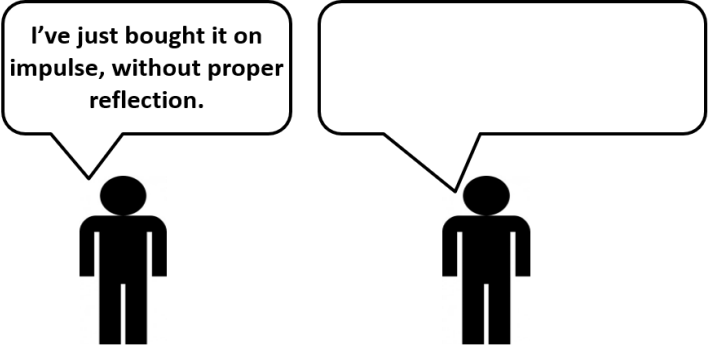
**8) The most representative picture (to read)**

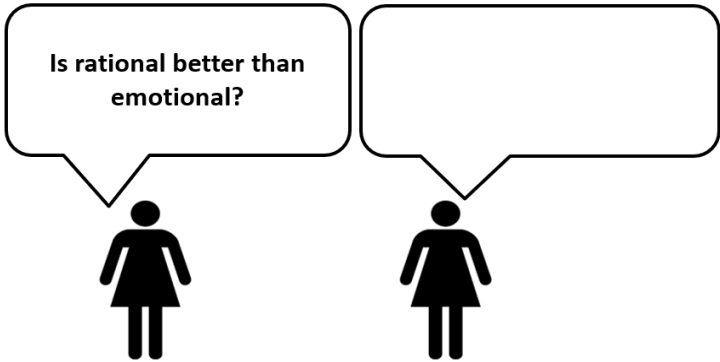
<b>Interviewer:</b>	<b>Among the images that you have selected, which one is the one that triggers the most your impulsivity and why?</b>
<b>Interviewee:</b>	
<b>Interviewer:</b>	<b>Why/How is this aspect relevant for you?</b>

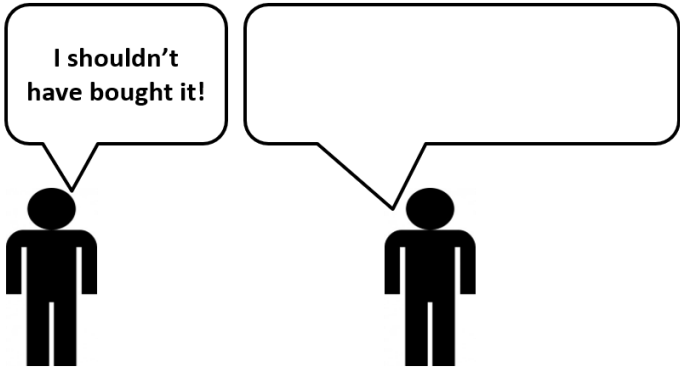
**9) Sensory images (to read)**

<b>Interviewer:</b>	<b>Can you describe your idea of rewarding images in terms of ultimate sensorial engagement (i.e. taste, touch, smell, sound, colour)?</b>
<b>Interviewee:</b>	
<b>Interviewer:</b>	<b>Why/How is this aspect relevant for you?</b>

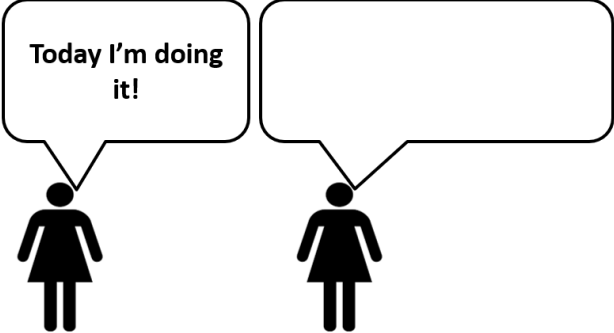
10) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

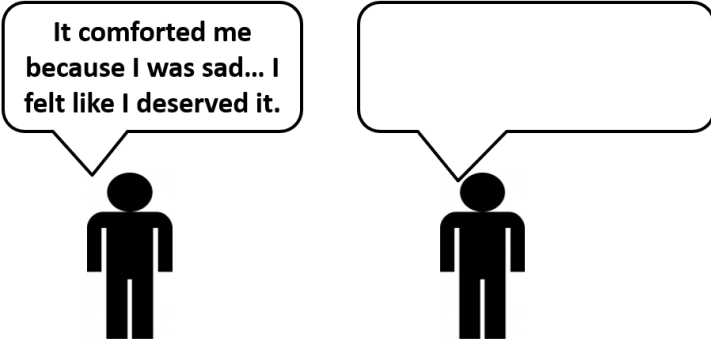
11) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

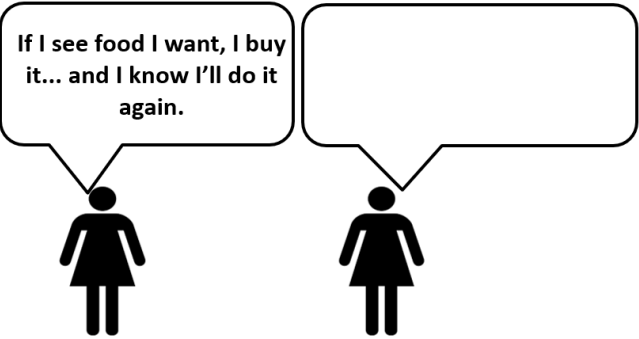
<b>12) Bubble drawing</b> <b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

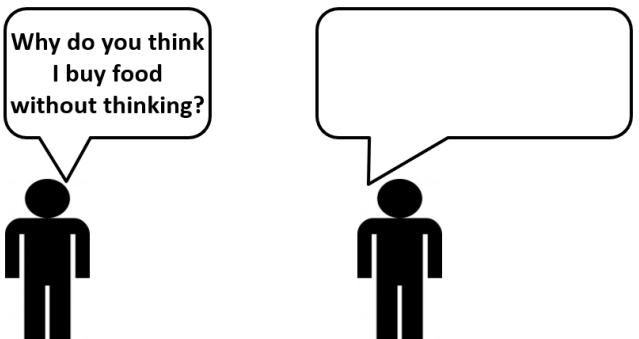
<b>13) Bubble drawing</b> <b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?



14) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

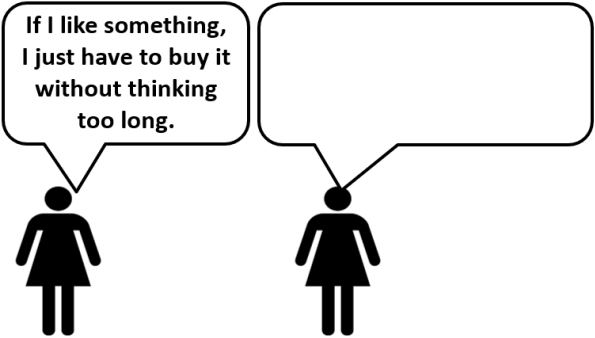
15) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

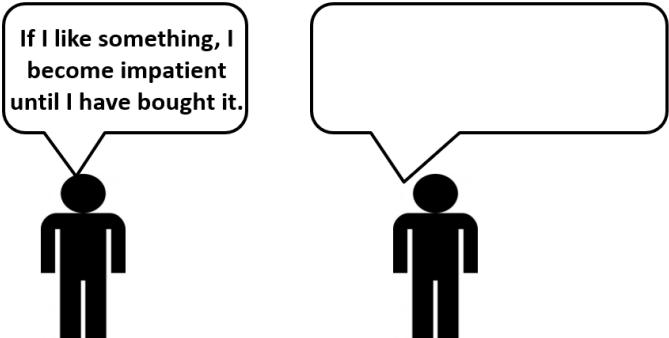
16) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

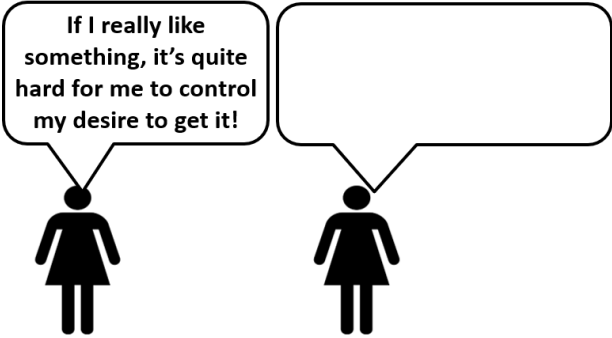
17) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

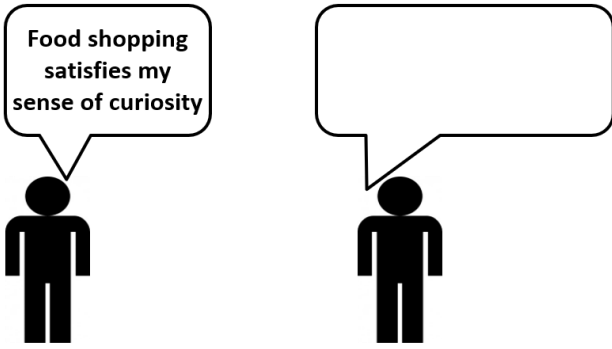
<b>18) Bubble drawing</b> <b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?


<b>19) Bubble drawing</b> <b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?


20) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

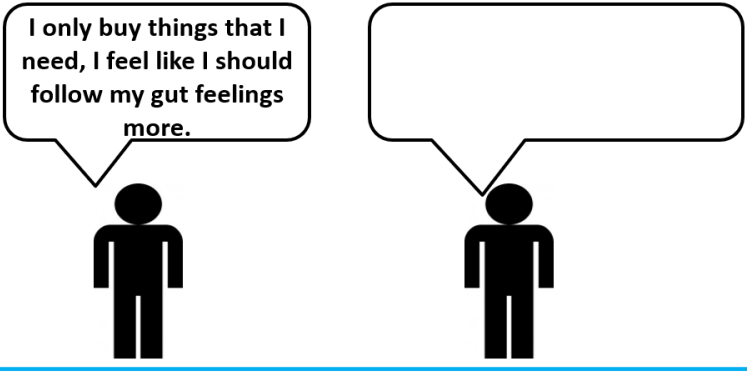
21) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

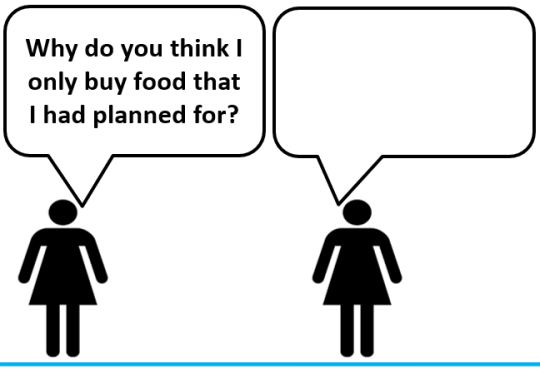
22) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

23) Bubble drawing	
Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

<p><b>24) Bubble drawing</b></p> <p><b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b></p>	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

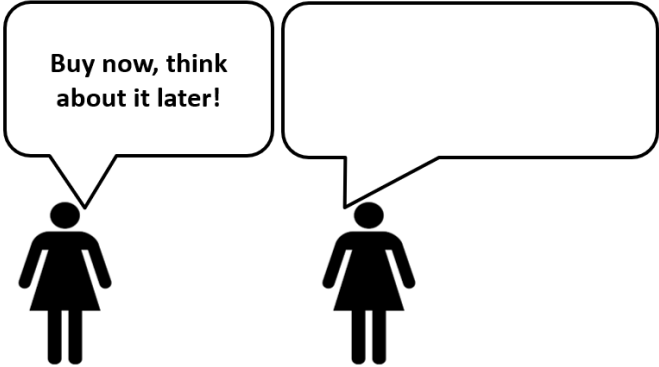
<p><b>25) Bubble drawing</b></p> <p><b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b></p>	
Interviewer:	Fill the bubble drawing with the first sentence that comes to your mind.
Interviewee:	
Interviewer:	Why/How is this aspect relevant for you?

<p><b>26) Bubble drawing</b></p> <p><b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b></p>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

<p><b>27) Bubble drawing</b></p> <p><b>Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.</b></p>	
<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

**28) Bubble drawing**

**Please leave blank the ones that you believe are irrelevant. Genders are assigned randomly, feel free to change them if you wish.**

<b>Interviewer:</b>	Fill the bubble drawing with the first sentence that comes to your mind.
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why/How is this aspect relevant for you?

**29) Storytelling (to read)**

<b>Interviewer:</b>	Can you tell me a story based on one of your pictures that describes your thoughts and feelings about impulsive food buying?
<b>Interviewee:</b>	
<b>Interviewer:</b>	Why?
<b>Interviewee:</b>	