ERASMUS UNIVERSITY ROTTERDAM | Rotterdam, the Netherlands
Erasmus School of Economics
MSc Economics & Business | Marketing Thesis

19/06/2017

A Box of Chocolates

The impact of internal and external factors on the impulse purchase intention of online and offline shoppers

Reinout Verheijen
323108RV@EUR.NL

Supervisor: M. Asim
Co-reader: Dr. V. Avagyan

Acknowledgements

I would like to take this opportunity to thank the people who have helped me get through this process. First and foremost, I would like to extend my gratitude to my family and friends for their unconditional support. Without you, the paper would not have been in the state that it is today.

Many thanks to my thesis coach, Muhammed Asim, for being patient and providing exceedingly helpful advice and comments throughout our interactions. I gained a lot of knowledge and garnered many new insights on how to apply the theoretical learnings of my studies. I would also like to thank Dr. Vardan Avagyan for taking the time to co-read my thesis.

I must also acknowledge the important contributions provided by the people who took the time to complete and distribute the surveys, without your input I could not have acquired the necessary data in such a short amount of time.

I am eternally grateful to all of you.

This thesis marks the end of my studies and the beginning of a new chapter, therefore I feel like the following quote is relevant to me, and this paper, in more ways than one:

"Mama always said: life was like a box of chocolates. You never know what you're gonna get." Gump, Forrest (1984)

Reinout Verheijen

Rotterdam, 19/06/2017

Table of Contents

1. Introduction

One of the core assumptions of Economics and Business is that people are rational beings, which stems from rational choice theory, a fundamental concept of economics. Rational Choice Theory dictates that, in general, people make conscious and considered choices by weighing up marginal costs and benefits of each given choice alternative. At its most basic level; behavior can be considered rational if it is goal-oriented, evaluative and consistent, thus, rational behavior is predictable. Rational consumers maximize their long-term utility or happiness, and rational firms maximize their long-term profit. The assumption of rationality has facilitated academic research by imposing boundary conditions on human behavior, providing the basis for economic and marketing theories. The assumption however, cannot explain all human behavior. Is it rational when a person is at the grocery store and spontaneously decides to add a chocolate bar, from the promotions next to the checkout counter, to their other purchases? Such behavior is characterized by little or no forethought, reflection or consideration of consequences, and is also known as impulse buying. In clinical psychology, a distinction is made between rational and impulsive behavior (Rook & Fisher, 1995, p. 306) as human thought can be broken down into primary and secondary processes. Where the latter deals with rational behavior, the former is responsible for encouraging uninhibited behavior (Freud, [1896] 1911). Impulse buying is therefore a manifestation of primary thought processes.

From a marketing standpoint, past research has shown that impulse buying occurs across numerous consumer segments and a wide range of product categories (Rook D. W., 1987), (Clover, 1950), (Applebaum, 1951). In general, according to a survey administered in the United States (US), 84% of people admit they have made an impulsive purchase in the past (creditcard.com, 2016), generating up to 80% of total sales in certain product categories (Abrahams, 1997), although this share can vary greatly. Research compiled by the Harvard Business Review (Quelch & Cannon-Bonventre, 1983) shows that impulse buying, as a share of total sales, accounts for up to 91% of magazine / newspaper purchases, and 85% of candy and gum sales (POPAI/Dupont, 1978). In addition, 78% of snacks, 69% of cosmetics (Store Buying Decisions: 60 Percent In-Store, 1982), and between 27% and 62% of all department store sales are rendered by impulsive behavior (Bellenger, Robertson, & Hirschman, 1978, p. 15). In spite of these inconsistencies, the financial impact is profound, as said behavior accounts for $4 billion annually in the US alone (Abrahams, 1997). The phenomenon seems more relevant now than ever before, with supermarkets having

experienced an increase in unplanned purchases from 38.2% of total sales in 1945 to 50.9% in 1959 (Stern, 1962), and 52.5% in 2001 (Nichols, Li, Roslow, Kranendonk, & Mandakovic, 2001).

Although there is no question as to the significance of impulse buying in bricks-and-mortar retailing, the market place is changing. The number of online shoppers and the volume of goods and services sold via online channels has steadily increased, culminating in a 41.6% increase of U.S. e-commerce sales and 3.8% growth of the platforms' share of total retail in the period 2012-2016 (Figure 1).

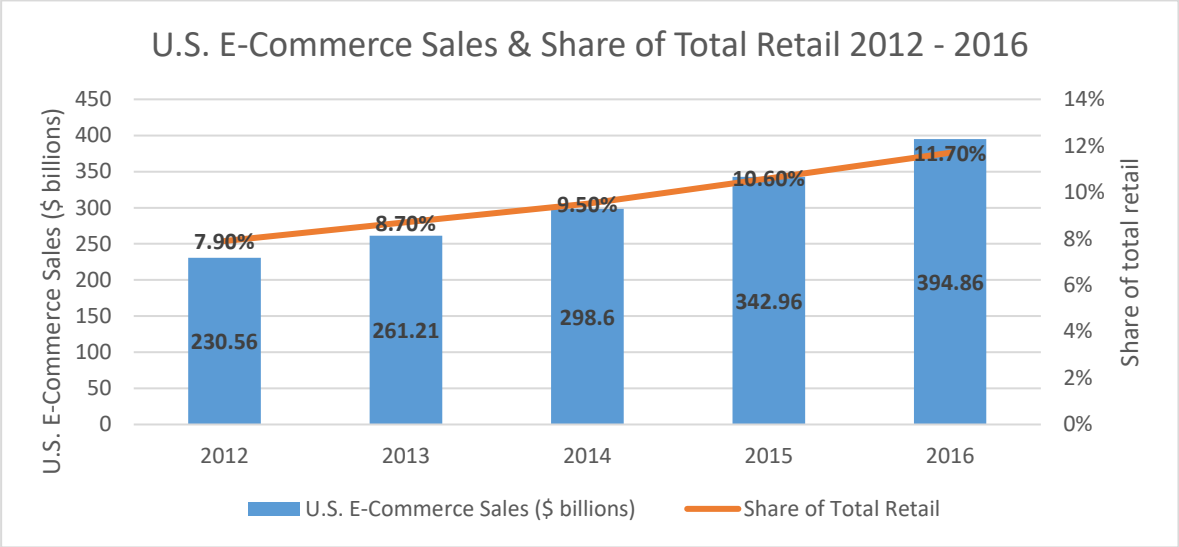


Figure 1: Data derived from the U.S. Commerce Department and internetretailer.com (Zaroban, 2017). Excludes the sales of goods not normally purchased online such as automobiles, fuel, and purchases made in restaurants and bars.

With the growing significance of online shopping, garnering a deeper understanding of impulse buying on the internet is becoming increasingly relevant. Although reliable data is not readily available (Floh & Madlberger, 2013), preliminary findings suggest that the behavior is also consistently present in the online environment (Li, Kuo, & Rusell, 1999), and represents almost 40% of all money spent on e-commerce sites, according to some estimates (User Interface Engineering, 2002). If this proportion has remained unchanged over time and considering the data presented in Figure 1, impulsive online purchases accounted for almost 160 billion dollars in 2016 in the US. Furthermore, research of the behavior has generated tools with great practical relevance. For example, recommendation agents have been shown to greatly incite impulsive behavior online (Hostler, Yoon, Guo, Guimaraes, & Forgionne, 2011). It is for these reasons that a closer examination of the role of the sales channel; online webshops and offline brick-and-mortar stores, is warranted.

Impulse buying can be triggered by a variety of internal and external factors (Wansink, 1994) which differ between online and offline platforms. Regarding external triggers, although both sales channels have characteristics in common, online consumers make purchase decisions in absence of physical interaction with the store and its products and lacking face-to-face interaction with sales representatives. This poses a challenge to online retailers who seek to encourage impulsive buying as, "almost all unplanned buying is the result of touching, hearing, smelling or tasting something on the premises of the store". (Underhill, 1999, p. 158). Peck and Childers sought to demonstrate the importance of touch in their study and found that a significant inverse relationship exists between impulse buying behavior and proximity; subjects became more impulsive the closer they physically were to the product (Peck & Childers, 2006). Consequently, when lacking sensory interaction, some other asset must be employed to trigger the desired impulsive behavior.

Therefore, in the online arena, the role of intangible assets, such as the brand, is intensified and has a potentially greater influence on consumers relative to brick-and-mortar stores. Now that consumers have come to expect certain standards of product quality, and product characteristics are easily duplicated by competitors (De Chernatony, 2010), a strong, favorable and unique brand image is vital for building brand equity (Keller, 1993). A brand's personality is the personification of a brand's image, and is a method for addressing the topic from the perspective of the consumer. Akin to the way people form relationships, consumers can develop relationships with inanimate objects, such as commercial brands, and the personalities and traits that they take on (Aaker J. , 1997), (Fournier, 1998). Brand personalities therefore facilitate brand differentiation as product differences within a category are emphasized (Halliday, 1996) which enables variety seeking; a major cause of brand switching and impulse buying (Hawkins, Best, & Coney, 2001), (Sharma, Sivakumaran, & Marshall, 2010). In addition, characteristics which are fundamental to a brand's perceived personality, such as the color and style incorporated in a brand's product, packaging or display, have been found to influence the likelihood of impulse buying (Tauber, 1972). For these reasons, it is reasonable to expect varying perceived brand personalities to significantly affect a consumer's propensity to buy impulsively.

1.1 Problem Statement

This paper will examine the external cue consisting of varying brand personality dimensions and internal cues as triggers of impulse buying while accounting for the expected moderating effect of the sales channel (online versus offline). To further explore this subject, the following research question and resulting sub-questions will act as the focal point throughout this paper:

> *WHICH BRAND PERSONALITY DIMENSION SHOULD A FIRM EMPLOY TO ENCOURAGE CONSUMER IMPULSE PURCHASE INTENTION ONLINE AND OFFLINE?*

Subsequently:

1. What means of quantifying brand personality are there and which of these scales provide the most consistent reflection of a consumer's opinion of a brand?
2. In terms of encouraging impulsive buying, are there brand personality dimensions which work equally well online and offline? Which works better in what scenario?
3. What kind of person is more susceptible to succumb to impulsive tendencies? In other words, what are some of the internal characteristics that regulate a person's propensity to exhibit such behavior?

1.2 Research Methodology

To address the research and sub-questions, existing literature on the topics of brand personality, impulse buying, and the relevance of the sales channel will be reviewed, in addition to the scales which exist to quantify the relevant constructs. Previous findings will then form the foundation of the hypotheses and the ensuing conceptual model. A product category is selected and an exploratory pre-test is performed to determine which of the chosen brands are most suitable for use in the main study that follows. The primary study requires respondents to imagine themselves in hypothetical buying scenarios, in both an online and offline setting. Surveys are the lone means for data collection, and both the pre-test and the main survey are distributed online, within the author's personal network. Using multiple regression analysis, data rendered by the main survey is analyzed, interpreted, and conclusions in relation to the research question are drawn.

1.3 Relevance of Topic

Over the last decade, companies have become increasingly aware of the influence intangible assets, such as a firm's brand, can have. Consequently, branding has become a top management priority (Ailawadi & Keller, 2004) as brand managers seek new ways to differentiate their brand from other players in the marketplace, as opposed to the more traditional strategy of altering functional attributes of products and services. Although there is a plethora of literature on the subject of impulse buying, a gap of knowledge exists in regard to the manner in which interaction with a computer or machine affects said behavior. In particular, Koufaris et al. (2001) stated that further research was required to shed light on how online environments can best be constructed to encourage unplanned behavior (Koufaris, Kambil, & LaBarbera, 2001). Consequently, this study seeks to supplement existing literature by garnering new insights into people's impulse purchase behavior in the online and offline setting, and will in turn hold managerial and academic value.

1.3.1 Managerial Relevance

Increasing impulsive behavior benefits the bottom line of retailers, a desirable outcome from the retailers' point of view. For example, Kollat & Willet found a relationship between the amount of money spent at a grocery store and the percentage of unplanned purchases (Kollat & Willett, 1967). The effect of impulse purchasing offline has been well documented and already accounts for a majority of all sales in brick-and-mortar supermarkets with estimates ranging from 50.8 to 67.7% (Roth, 2014). Impulse behavior has also been found to account for roughly 40% of all money spent online per some estimates (User Interface Engineering, 2002).

In the offline setting, knowledge garnered by previous research has led to several concrete implementations such as enhanced in-store and point-of-sale displays, optimized shelf allocations and store layout to maximize the amount of time customers spend in the store (Chandon, Hutchinson, Bradlow, & Young, 2009), and an increased comprehension of the product labels, logo's and packaging (Kotler, 1973).

On the other hand, in regard to the online sales channel, research on external trigger cues to impulse buying is scarce, although the potential upside is no secret. E-commerce giants such as Amazon have applied such learnings to develop algorithms to target consumers on a personal level, with customized product recommendations based on previously viewed and purchased items, changes which played a key role in

increasing 2012 Q2 sales by 29% over the previous year (Mangalindan, 2012). Referring to Figure 1, e-commerce sales in the US accounted for an estimated 11.7% share of total retail in 2016. In the Netherlands, this same figure was 8.5%, slightly above the European Union (EU) average but a far cry from the leading online shopper in the EU; the United Kingdom (UK) with 16.8% of all retail sales being made online. Forecasts suggest that in 2017, the Netherlands will exceed almost all other EU member states in terms of fastest-growing online sector, with growth being forecast at 17% (Centre for Retail Research, n.d.). Per the same source, 66% of the US population were e-shoppers in 2016, compared to only 52.8% in the EU. In short, even as the online market reaches maturity, there remains an enormous amount of untapped potential in the online platform, as retailers can benefit from the online consumers' increased propensity to purchase impulsively online over internet non-shoppers (Donthu & Garcia, 1999). If brand managers were to better comprehend the pertinent external and internal factors that precede impulse buying, product level adaptations can be made to encourage such behavior, while making sure that resources are not expended on poor targeting. This is where the current study seeks to contribute.

Conversely, this study may contribute to the consumers' understanding of the addressed topics. In some cases, impulse buying can be a precursor for what is known as uncontrolled or compulsive buying, a classified disorder in the field of psychiatry (Lejoyeux, Ades, Tassain, & Solomon, 1996), (Black, 2007). Features of which include impulsivity and repeated purchases, an "invasive need to buy", failure to alter spending habits, and the existence of perceivable negative consequences, such as distress, disruption of social and professional obligations, or financial complications (Lejoyeux, Ades, Tassain, & Solomon, 1996). Knowledge garnered in this study could facilitate better, and more informed decision making on a personal level, and policy on a larger scale, as consumers and policy makers are made aware of the tools which brands and retailers employ to manipulate behavior.

1.3.2 Academic Relevance

Although the topics brand personality, impulse buying and the sales channel have individually received a lot of attention in marketing and consumer behavior research, very little research has been undertaken that examines the relationship between all three. Brand personality for example, has seen most of its research focused on exploratory analysis, scale development and fit (Aaker J. , 1997), (Geuens, Weijters, & De Wulf, 2009). Additionally, in the process of attending to the research question, the scales used to quantify

perceived brand personality will be put under scrutiny, adding to existing literature to confirm or debunk their reliability and applicability in a previously unexplored product category.

Finally, to the author's knowledge, to date there has been no research done exploring the moderating effect of sales channel on the link between external triggers and impulse buying. Previous research has found effects in either online (Hodge & Jeffrey, 2007) or offline (Dholakia, 2000), (Rook & Fisher, 1995) settings but in absence of the sales channel moderator. The current study will build on suggestions put forth by existing research and attempt to fill this gap.

2. Literature Review

Before delving into hypothesis development and in order to provide managerial and academic value, a theoretical foundation must be established. Past research concerning impulse buying and the external and internal triggers cues that lead to such behavior, as well the sales channel, are the theoretical constructs that will now be discussed.

2.1 Impulse Buying

In existing literature, a lot of ambiguity exists amongst scholars attempting to ascertain what constitutes impulse buying. In fact, a substantial portion of literature has gone into defining the phenomenon. Clover was one of the first to provide an interpretation, addressing the topic from an exclusively managerial perspective, with the retailer at the focal point. "The purchase, not the consumer was investigated" (Piron, 1991), as the scope of the definition was limited to simply buying in absence of prior planning (Clover, 1950). Scholars at the time quickly expanded this definition to acknowledge the role of outside influence; behavior that stemmed from a consumer's exposure to a trigger or stimulus (Applebaum, 1951), (Nesbitt, 1959). Triggers such as the tangible and intangible aspects of the product, its allocation on the shelf, the look and feel of the store, and the ability of salespeople to influence shoppers (Kotler, 1973). Planned purchases entail seeking and gathering information, which takes time and effort, leading to rational decision making (Piron, 1991). Purchases that are unplanned are those that are made in absence of planning, including impulse buying, "which is distinguished by the relative speed with which buying 'decisions' occur" (Hausman, 2000); time is therefore the distinguishing factor between the two. Relative to unplanned purchases, impulse buying occurs in a shorter time span (Dholakia, 2000). Based on the same premise,

Stern went even further and split the phenomenon into four distinct types; planned, pure, reminder and suggestion impulse buying, known as the "impulse mix" (Stern, 1962).

However, by excluding consumer-driven factors, Stern's definition was limited. Rook and Hoch sought to correct this by focusing on the cognitive and emotional reactions that consumers experience before and during such behavior (Rook & Hoch, 1985). However, this interpretation 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 […] with diminished regard for its consequences" (Rook D. W., 1987, p. 191), thereby excluding purchases that are the direct result of a suggestion or reminder, in absence of such reactions (Piron, 1991). Consequently, the definition is perhaps too narrow, but by acknowledging the importance of the consumers' internal determinants, a turning point in the conceptualization of impulse buying was reached. These interpretations focus on either the purchase or the customer (Piron, 1991).

Broadly speaking, triggers of impulse buying can be divided into two categories; external and internal cues (Wansink, 1994). External triggers can be controlled by the brand manager, retailer or marketer and are intended to alter a consumer's purchase behavior (Youn & Faber, 2000). Internal triggers, on the other hand, are static, and cannot be manipulated by outside influences, such as a person's demographic factors (i.e. age, gender and education level) or an individual's innate propensity to succumb to impulsive urges (Kacen & Lee, 2002).

Due to the role that perceived brand personality and cognitive and affective factors will fulfill in the current study; external and internal determinants respectively, it is a prerequisite that the working definition accounts for both. Piron conducted a thorough analysis of existing definitions of impulse purchase and, following review of their deficiencies, defined the phenomenon as behavior that satisfies three key characteristics; unplanned, the result of an exposure to stimulus, and decided "on-the spot" (Piron, 1991). In addition, the definition extends in its complexity by making a distinction between experiential and non-experiential impulse purchases, where only the former is the result of emotional and/or cognitive reactions. This definition meets the requirements of the current research and will be the working definition of this paper when the terms "impulse buying" or "impulse purchasing" are used. These terms will be employed interchangeably.

Existing studies have examined the effect of various internal and external factors which can affect a person's propensity to make an impulse purchase. Several of these factors be controlled for during the empirical analysis section of this paper.

Internal factors such as age (Wood, 1998), education level (Rook & Gardner, 1993), gender (Dittmar, Beattie, & Friese, 1996), culture (Kacen & Lee, 2002), mood (Rook D. W., 1987), (Rook & Gardner, 1993), (Youn & Faber, 2000) and a consumer's normative evaluation of engaging in such behavior (Rook & Fisher, 1995) have all been found to have an effect on impulse buying.

These factors however, lie outside a marketer's ability to control. External factors are more relevant as these can be manipulated and consequently provide managerial relevance and practical value. For example, research has found that impulsive behavior can be incited by promotional incentives (Dholakia, 2000), shopping enjoyment or experience (Beatty & Ferrell, 1998), which in turn can be influenced by characteristics of the store environment and atmosphere both offline (Mohan, Sivakumaran, & Sharma, 2013), and online (Childers, Carr, Peck, & Carson, 2001). Other external factors such as encouraging physical interaction with a product via touch (Peck & Childers, 2006), price (Piron, 1991), (Zhou & Wong, 2004), in-store promotions (Liao, Shen, & Chu, 2009), (Shukla & Banerjee, 2014) and the allocation of products on shelves (Chandon, Hutchinson, Bradlow, & Young, 2009) were found to affect impulse buying. Physical proximity also plays a pivotal role in generating desire for a product (Faber & Vohs, 2004), (Mischel & Grusec, 1967).

Additionally, a stream of literature argues for the existence of a third determinant of impulse buying related to situational factors existing at the time of purchase (Dholakia, 2000). Factors such as the availability of time (Beatty & Ferrell, 1998), and financial means (Murray, 1938), (Beatty & Ferrell, 1998) the presence of friends (increased tendency) or family (decreased tendency) (Luo, 2005), the amount of time spent browsing in-store (Beatty & Ferrell, 1998), and product involvement (Jones, Reynolds, Weun, & Beatty, 2003) were all found to influence one's tendency to purchase impulsively.

The current research adds to existing literature by investigating how an external determinant, the intangible asset of perceived brand personality, affects impulse buying. However, before proceeding with describing the relevant internal and external determinants, impulse purchase intention will be further explored.

2.1.1 Intention

In Rook and Fisher's (1995) original hypothetical buying scenarios; which the methodology of this study is modelled after, the term "impulse buying decision" was used instead of impulse purchase / buying intention (IPI) to denote the respondent's level of impulsivity in a simulated scenario. However, in the study currently presented, preference is given to IPI as impulse buying decision implies that actual purchase behavior is being measured, which is not the case. Instead, Rook and Fisher's (1995) study, and the current research, employ an imaginary stimulus situation (see 3.3.1.1). This study investigates the influence of external and internal factors on impulse buying, using IPI as a predictor of actual purchasing behavior (Kalwani & Silk, 1982). The intention measured will reflect an individual's impulsive buying in a hypothetical scenario. The reasoning behind the selection of a self-reported behavioral measure will now follow.

Behavioral intent and actual behavior are two distinct categories of behavioral responses (Beatty & Ferrell, 1998). In relation to the current study, behavioral intent differentiates itself from actual purchasing behavior by the presence of intention to acquire a certain good or service, in other words, "a consumer's actual buying behavior is based on the idea that a consumer may simply decide that he/she will purchase a product or purchase spontaneously" (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003, p. 249). Strictly speaking, IPI precedes actual impulsive behavior. As an individual is exposed to impulse inducing stimulus, they may feel a sudden, spontaneous urge or desire to make a purchase (Rook D. W., 1987). The intention is made, followed by the individual attempting to satisfy this urge by acting out and making a purchase. Actual impulse purchasing behavior can only occur if it is proceeded by an urge, but consumers do not always succumb to their urges, highlighting an important distinction between the two (Weinberg & Gottwald, 1982).

The measurement of impulse buying can be done in a variety of ways. In the ideal scenario, one would prefer measuring actual purchasing behavior, but this method has its drawbacks. For example, existing studies have asked respondents to self-report, via surveys, the last time they had made an online impulse purchase (Madhavaram & Lavarie, 2004), or to recall the difference between their intended and actual purchases (Koufaris, 2002), both of which found non-significant results. Conclusively, actual impulse purchasing does not lend itself well to experimental studies, as authentic behavior is easily compromised by the rigid setup of an experiment or pre and post-purchase interview / survey.

To most, impulse purchasing is classified as detrimental behavior (Hausman, 2000) hence people tend to succumb to impulse urges only when such behavior is deemed appropriate (Rook & Fisher, 1995). As a result, an individual partaking in a controlled setting may be subconsciously inclined to alter their behavior to fit what they consider to be the norm or the expected behavior in a given scenario (Fisher, 1993). Several researchers corroborate this sentiment, arguing that observing actual impulsive behavior is problematic (Luo, 2005), (Parboteeah, Valacich, & Wells, 2009) because observing and interviewing consumers at a purchase location may invalidate results due to the experimental or guinea pig effect (Willet & Kollat, 1968). This effect occurs "because observation of behavior and data collection may significantly change what is being observed" (Pollay, 1968). The confusion is further perpetuated by the fact that Beatty and Ferrol's (1998) interpretation of actual purchase behavior implies that consumers do, in fact, make a purchase, which may not always be the case, as consumers can change their mind pre and post purchase; before finalizing the payment procedure or ultimately deciding to return a purchased item back to the store for a refund (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003).

The question that remains is whether IPI provides an accurate prediction of actual behavior. Several studies have shown this to be the case, as several studies have found intention to correlate significantly with behavior (Sheppard, Hartwick, & Warshaw, 1988), (Kim & Hunter, 1993), (Sutton, 1998) and the construct has been used in a variety of online (Adelaar, Chang, Lancendorfer, Lee, & Morimoto, 2003) and offline (McGoldrick, Betts, & Keeling, 1999) contexts. Furthermore, Beatty and Ferrell (1998) found actual impulse purchasing to hold less explanatory power over impulsivity than the urge, or intention to buy impulsively; "given that the fit of their structural model improved when using the urge to buy impulsively rather than the actual purchase behavior as the dependent variable" (Parboteeah, Valacich, & Wells, 2009, p. 63). Consequently, IPI can be considered a reliable predictor of actual purchase behavior and will be employed in the current study.

2.2 Determinants of Impulse Buying

An individual's propensity to make an impulsive purchase is affected by internal and external factors (Wansink, 1994). Previous research has ascertained that such behavior is often preceded by some sort of stimulus (Rook & Fisher, 1995), and that increased exposure to the right kind of stimulus leads to an increased propensity to succumb to impulse purchasing (Iyer, 1989). External factors capture the factors

that are under the control of the marketer. Internal factors are those determined by individual characteristics and traits, which are impervious to outside influences (Dawson & Kim, 2009). The current research will examine the personalities that brands can undertake as the external factor of interest, while impulse buying tendency (IBT) represents the relevant internal factor of impulse buying.

2.2.1 External Determinant: Brand Personality

The idea that brands can take on human characteristics is well established in literature, first gaining academic ground in 1955 (Gardner & Levy, 1955) and receiving significant academic interest since then (Plummer, 1984/1985), (Aaker J. , 1997), (Carr, 1996) (Biel, 1993). There are varying interpretations of what exactly constitutes brand personality, leading to a fractured definition, primarily centered around where the construct fits in the subject of branding. The term is often misused to name two closely associated marketing concepts; brand image and user / usage imagery (Batra, Lehmann, & Singh, 1993), (Aaker D. A., 1996). However, brand image, user / usage imagery, and brand personality are separate entities in the subject of branding (Keller, 1993), (Aaker D. A., 1996). Therefore, for the sake of context, the core constructs need to be addressed.

Brand equity is the added value of the brand to a product (Keller, 1993, p. 1) and encapsulates all brand related constructs. In other words, from a consumer's perspective, when an individual is more inclined to purchase a product from Brand A over the same product from Brand B, and the brands only differ in their brand elements, one can say that Brand A possesses positive customer-based brand equity. Figure 2 is an illustration of brand equity (brand knowledge is synonymous) as a theoretical construct and maps the location of brand personality in relation to the bigger picture.

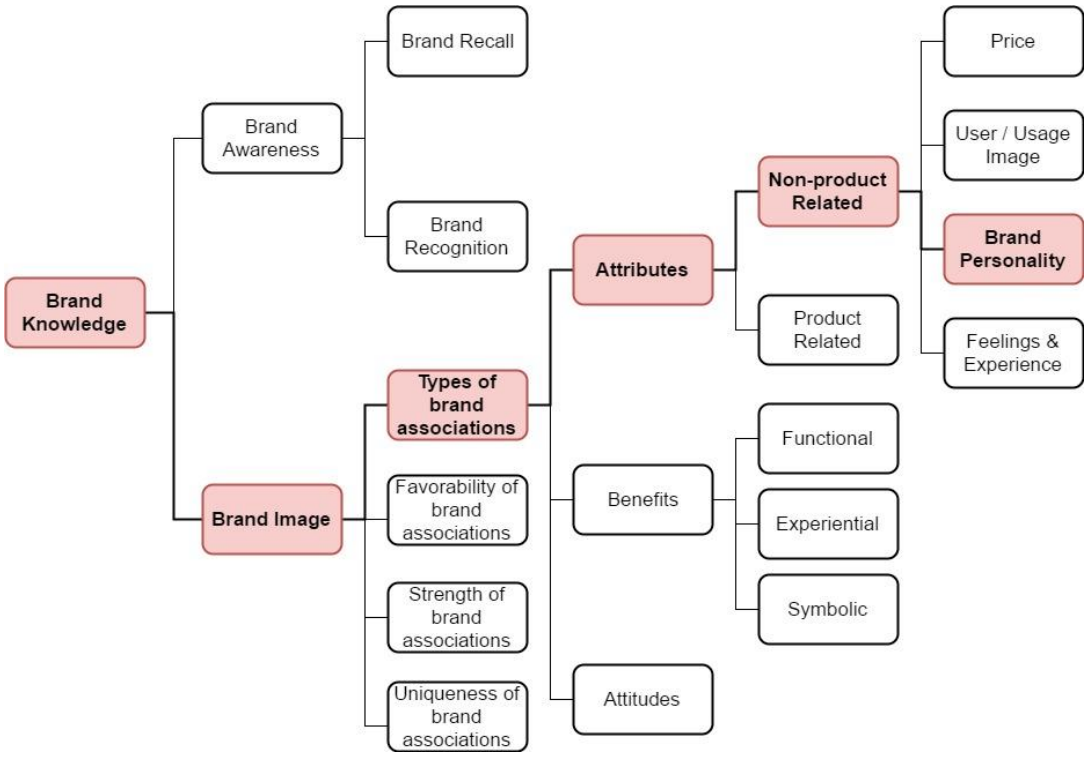


Figure 2: Where brand personality fits in the brand equity construct. Source: (de Groot, 2012, p. 11), based on Keller's "Dimensions of Brand Knowledge" source: (Keller, 1993, p. 7)

To eliminate any ambiguity between the terms brand image and brand personality, it is important to establish that the latter is a component of the former. The term 'brand image' captures a wide array of intangible and non-product related attributes, as well as price. In turn, brand knowledge is comprised of brand awareness and brand image. Brand awareness refers to the extent to which consumers can identify a particular brand in varying conditions and scenarios. Brand image refers to the associations or impressions of a brand held by consumers (Keller, 1993). Non-product related attributes are price, user imagery, brand personality and feelings & experiences (Keller, 1998).

The brand personality construct fulfils a symbolic role, unlike product related attributes which fulfill a utilitarian one (Keller, 1993). The construct shares similarities with other non-product related attributes which also serve symbolic functions, as a brand's personality can be derived from the brand's users and usage scenarios as well as feelings when interacting with the brand (Plummer, 1984/1985), (Keller, 1993). However, the brand personality construct is unique in the sense that, when successfully implemented, it "provides the brand with more depth, with a 'soul' that is crucial for the brand image" (Ouwersloot &

Tudorica, 2001, p. 8). This can aid in establishing, what the consumer perceives to be, a mutual beneficial relationship between themselves and the brand; like the feelings and emotions on which relationships between people are based. This human element is a key ingredient of the construct, and can therefore also be found in Aaker's definition of brand personality; "the set of human characteristics associated with a brand" (Aaker J. , 1997). These associations are based on a combination of a brand's name, logo, marketing communications and / or the features of its products (Batra, Lehmann, & Singh, 1993).

When a brand relationship is developed, over time, loyalty is fostered and a brand's personality can become the primary decision factor employed when a consumer makes a purchase decision (Ouwersloot & Tudorica, 2001). Once consumers engage with the personality of a brand, brand resonance can occur, promoting consumer loyalty, the spreading of positive word-of-mouth / recommendations / referrals, lower price elasticity and an increased inclination to purchase product extensions (Kervyn, Fiske, & Malone, 2012), (Keller, 2012). The pinnacle of the interaction between consumer and brand is when brand communities are formed (Muniz & O'Guinn, 2001), which show, but also build, brand resonance.

As the boundaries between brands on a physical aspect level begin to fade, the building and managing of a strong, favorable and unique (Keller, 1993) brand personality has become increasingly important (Kapferer, 2008). Nowadays, product features are easily replicated. Where historically, aggressive investment in product innovation was sufficient to establish a competitive advantage, today, first-mover benefits are diminished. Other market players quickly and easily replicate features while product quality is becoming increasingly consistent across brands (van Rekom, Jacobs, & Verlegh, 2006). Thus, brands looking to differentiate themselves from competitors seek new ways of doing so, thereby clarifying the growing academic and managerial interest in intangible, non-product related attributes such as brand personality. A robust and well managed brand personality can limit the adverse effects of managerial mismanagement and allow new products to benefit from associations that consumers have with existing product lines (Aaker J. , 1999) (Aaker, Fournier, & Brasel, 2004). Furthermore, a strong, favorable and unique brand personality can be a sustainable competitive advantage, one which cannot easily be imitated by competitors (Ang & Lim, 2006), and allows consumers to differentiate between brands, even within the same product category (Halliday, 1996). Conclusively, the brand personality construct plays a crucial role in the foundation of a long-term consumer-brand relationship (Hawkins, Best, & Coney, 2001, p. 376) and in the development of brand equity (Okazaki, 2006).

The question that remains is; why is it relevant to examine what role brand personality fulfills in the brand equity construct? This study aims to determine the effect of this external determinant on IPI, consequently all other brand related effects need to be controlled for. This issue will be further addressed in section 4.4.1.

Now that it has been established that consumers can attach human characteristics to a brand, how does one go about measuring and quantifying the phenomenon?

2.2.1.1 Measuring Brand Personality

Historically, measuring brand personality has been problematic, as efforts focused primarily on ad hoc scales or reapplying measures of human personality (Diamantopoulos, Smith, & Grime, 2005). Brands can act as an extension to one's own self-image. In other words, consumers perceive brands as extensions of their own personality (Aaker J. , 1999). Due to these similarities between brand personality and human personality, past research has treated the study of the former in relation to previously established dimensions of the latter; namely the Big Five dimensions of personality (see Figure 3); the result of analyses of the "natural language terms" (Geuens, Weijters, & De Wulf, 2009, p. 98) people use to describe him/her self and other people (Goldberg, 1993). Scales designed to quantify brand personality must therefore acknowledge and account for the multidimensionality of the construct due to the similarities with human personality. Aaker (1997) pioneered efforts in this regard with her Brand Personality Scale (BPS).

Big Five Personality Traits

Extraversion	• Active • Energetic • Lively
Agreeableness	• Authentic • Generous • Loyal
Conscientiousness	• Constant • Efficient • Reliable
Emotional stability / Neuroticism	• Calm • Patient • Stable
Openness	• Creative • Innovating • Up-to-date

Figure 3: The Big Five and the adjectives used for its assessment: (Caprara, Barbaranelli, & Guido, 2001)

2.2.1.1.1 Aaker's Brand Personality Scale

Aaker's BPS contains five brand personality dimensions comprised of 42 items and 15 facets, drawing from previous work on the Big Five personality dimensions. The scale can be utilized to measure to what degree a brand conveyed one, or a combination of, any of the five personality dimensions shown in Figure 4.

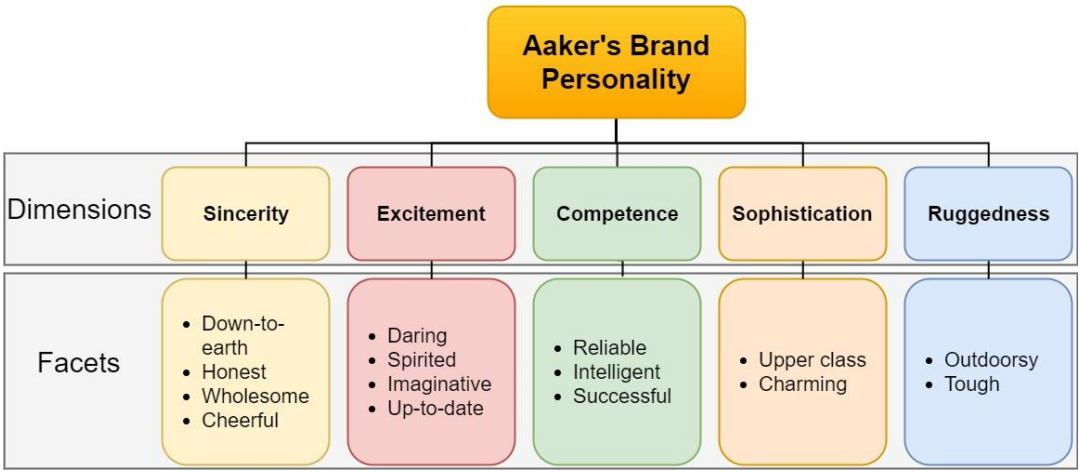


Figure 4: Aaker's 5 Dimensions of Brand Personality. Source: (Aaker, 1997, p. 352)

Aaker's work received substantial academic and commercial interest, and her BPS has been refined and its robustness validated in a variety of contexts (Aaker J. L., 2000), (Aaker, Benet-Martinez, & Garolera, 2001), (Swaminathan, Stilley, & Ahluwalia, 2009). Aaker's scale has been the most commonly used measure in research (Azoulay & Kapferer, 2003), (Parker, 2009), solidifying its dominance in marketing literature (Freling, Crosno, & Henard, 2011).

Nevertheless, the scale has had its fair share of criticism. Some have argued that Aaker's work strays too far from the Big Five personality construct, and that her definition of brand personality is too expansive by including items of a seemingly demographic nature such as age, gender, social status / class and intelligence besides personality[1] (Azoulay & Kapferer, 2003), (Bosnjak, Bochmann, & Hufschmidt, 2007). This results in a construct validity problem, as it is unclear what has been captured when utilizing the BPS; perceived brand personality or perceived user characteristics (Geuens, Weijters, & De Wulf, 2009, p. 97). Consequently, Aaker's definition is insufficient for the objectives of this paper. Azoulay & Kapferer (2003) rendered a more concise description of brand personality and will be the definition employed in this paper: "the set of human personality traits that are both applicable to and relevant for brands" (Azoulay & Kapferer, 2003, p. 151).

In addition, critics conveyed concerns about the generalizability of the factor structure for analyses, thereby imposing a serious boundary condition (Geuens, Weijters, & De Wulf, 2009, p. 97) as the BPS does not

[1] For example, Aaker's BPS includes items such as "Intelligent", "Upper class", "Young" and "Feminine". Source: (Aaker J. , 1997, p. 354)

lend itself to analyses on an individual brand and respondent level (Austin, Siguaw, & Mattila, 2003), which will play a significant role in this study. Concerns were also raised regarding the reliability of the dimensions across cultures (Azoulay & Kapferer, 2003), as subsequent studies found that some factors failed in other countries (Aaker, Benet-Martinez, & Garolera, 2001). In response to these criticisms, Geuens et al. (2009) developed their own interpretation of a BPS.

2.2.1.1.2 Geuens, Weijters and de Wulf's Brand Personality Scale

The new measure of brand personality seeks to address all the previous critiques, and the resulting scale, consisting of 5 dimensions and 12 facets, can be found in figure 5.

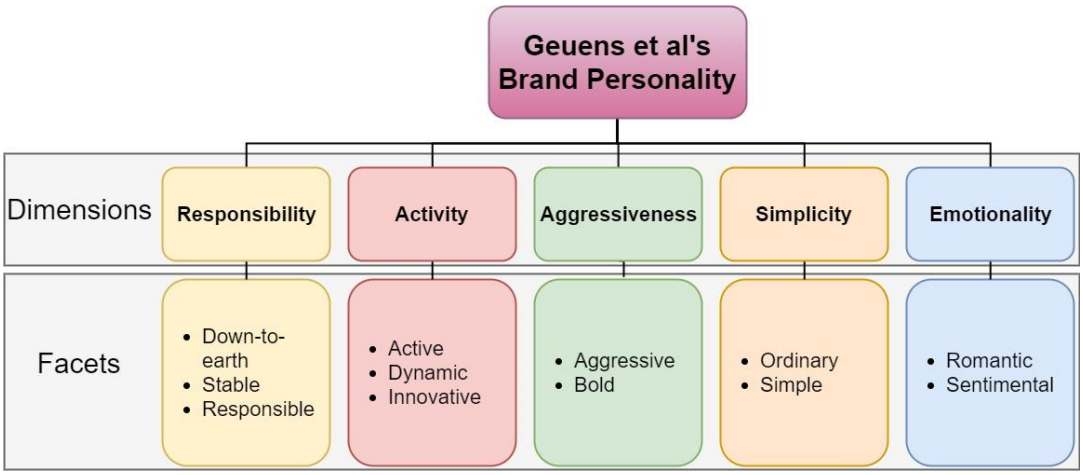


Figure 5: Geuens et al., the new brand personality measure. Source: (Geuens, Weijters, & De Wulf, 2009, p. 103)

The BPS of Geuens et al. (2009) was designed to include only personality items, and therefore more closely reflects the Big Five human personality dimensions than Aaker's rendition, as can be seen in Figure 6.

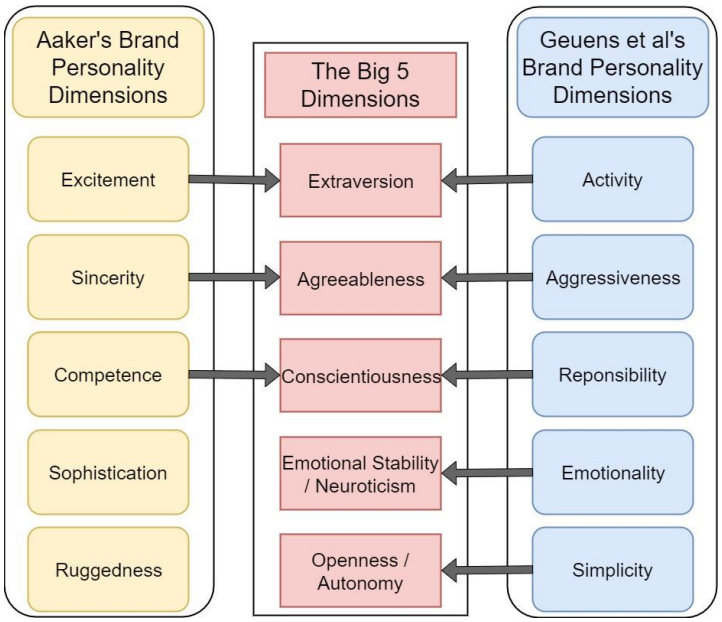


Figure 6: Aaker's BPS versus the BPS of Geuens et al. in relation to the Big 5 Human Personality Dimensions. Source

Critics have warned that the same factors employed in human personality scales are not suitable for assessing and measuring the personality traits in other contexts (Caprara, Barbaranelli, & Guido, 2001). However, by building on human personality constructs, the managerial relevance is enhanced, as it allows managers to better align their brand and product portfolio with the characteristics of the target audience. In addition, the scale was found to be generalizable, reliable and valid across sectors, markets and cultures, while allowing for between-brand within-categories comparisons and between-respondent analyses (Geuens, Weijters, & De Wulf, 2009, p. 106), marking a practical advantage over Aaker's BPS, since these are the types of studies most often undertaken in the field of marketing research (Austin, Siguaw, & Mattila, 2003). Conclusively, both personality scales will be compared in the pre-test to establish which is the more reliable rendition, but the BPS of Geuens et al. will be the focal point of hypotheses development and the main study that follows.

Now that the external factor has been assessed, the pertinent internal factors will be reviewed which make a consumer more inclined to purchase impulsively.

2.2.2 Internal Determinant: Impulse Buying Tendency

Internal factors of impulse buying revolve around the individual; the consumers' internal cues and characteristics that determine their propensity to make an impulse purchase (Dawson & Kim, 2009). IBT

is rooted in personality (Verplanken & Herabadi, 2001) and can be defined as "the degree to which an individual is likely to make unintended, immediate, and unreflective purchases" (Jones, Reynolds, Weun, & Beatty, 2003, p. 506), determined by internal cues such as a consumer's normative evaluation, demographic factors and, that which is most relevant in this study; their emotional state (Kacen & Lee, 2002). Past research has found that internal factors are often better predictors of impulsive behavior than other traits (Beatty & Ferrell, 1998), (Rook & Fisher, 1995), (Weun, Jones, & Beatty, 1998), and that people with high IBT scores have an increased likelihood to be influenced by external cues (i.e. marketing communications, packaging / logo's, promotional offers, etc.) and were more inclined to succumb to urges to buy on impulse (Youn & Faber, 2000).

The internal determinants that will be observed in this study are an individual's Cognitive and Affective states as internal cues of impulse buying. Cognitive aspects refer to a person's ability to think, comprehend and process information, where Affective aspects refer to feelings, emotions and moods (Youn & Faber, 2000), thereby occupying two opposite ends of a continuum (Coley & Burgess, 2003). As there is greater responsiveness to one's affective state over cognition, the likelihood of impulse buying occurring increases due to, for example, the presence of positive buying emotions, little or no cognitive consideration and the ignoring of possible future outcomes (Youn & Faber, 2000).

This study will employ Verplanken & Herabadi's (2001) IBT scale to measure internal cues of impulse buying in terms of an individual's cognitive and affective state (see Appendix D for the full scale). The specifics of this scale will be described in the methodology.

Before discussing the methods that will be used to answer the research question, the proposed moderating effect of the sales channel on the relationship between brand personality and impulse buying requires further examination.

2.3 The Sales Channel: Online versus offline

Although research has been conducted to examine the effect of external determinants of impulse buying such as product suggestions, reward programs, sale promotions and repeat purchase reminders online (LaRose & Eastin, 2002), (Childers, Carr, Peck, & Carson, 2001) and offline (Dholakia, 2000), (Mohan, Sivakumaran, & Sharma, 2013), none has been undertaken that compares the efficacy of such programs

across both channels, perhaps due to the complexity of such a task. This becomes immediately apparent when taking a closer examination of the literature.

Considering that the likelihood of impulse buying occurring increases when physical interaction (Peck & Childers, 2006), and proximity with the product is encouraged (Faber & Vohs, 2004), it seems reasonable to expect that consumers will be more susceptible to impulsive urges in a brick-and-mortar store than in a webshop. On the other hand, online shoppers have been found to be more impulsive and less brand conscious than people who did not buy online (Donthu & Garcia, 1999). So, there are factors which encourage impulse buying online relative to offline shopping, and factors which discourage it (Sirhindi, 2010).

Some examples of factors which encourage impulse buying on the internet include: anonymity (Koufaris, 2002, p. 210), (Rook & Fisher, 1995, p. 312), ease of access (Burton, 2002, p. 804), greater variety and stock of products (Chen-Yu & Seock, 2002, p. 74), minimal delay between ad exposure and webshop (Koufaris, 2002, pp. 117, 210) and costless shopping relative to the investment of time / effort / money required for shopping offline (Moe & Fader, 2004). In addition, when completing transactions with a credit card, the consumer is less conscious of their spending; “payments by credit card do not really feel like spending money” (Dittmar & Drury, 2000, p. 131), therefore people with access to a credit card are more inclined to make impulse purchases (Bernthal, Crockett, & Rose, 2005). Bearing in mind that, amongst consumers in the US, credit cards are the preferred method of payment when shopping online over PayPal and debit cards (TSYS, 2016, p. 16), the online shopping environment may entice impulsive behavior.

Examples of factors that discourage impulse buying online include: the waiting time between purchase and delivery of the product (Bayley & Nancarrow, 1998, p. 107), the ease at which a shopper can delay a potential purchase and (fail to) complete the transaction at a later time (Wolfinbarger & Gilly, 2001, p. 39), increased consumer control through the use of tools such as pop-up blockers or spam e-mail filters (Weinberg B. D., 2001, p. 228), and the ability to compare products and their prices across webshops, leading to a more informed decision making process and encouraging rational behavior (Koufaris, Kambil, & LaBarbera, 2001, p. 117).

2.4 Hypotheses Development

Having elaborated on the relevant literature on the internal and external determinants of impulse buying, personality in the context of humans and brands, and the sales channel, the corresponding hypotheses will now be formulated.

2.4.1 Brand Personality

Considering that the BPS of Geuens et al. (2009) shows an affinity with the Big Five human personality dimensions, the link can be made between the Big Five and impulse buying by formulating the theoretical expectations.

Extraversion – Activity

Extraversion is comprised of characteristics such as social dominance, feelings and emotions, friendliness, and motor activity (Carver & Scheier, 2008). These characteristics can be classified into two factors, affiliation and agency. Where affiliation refers to one's propensity to engage in social interaction, agency is to what extent someone is motivated by the will to convey dominance, desire attention and recognition from others for accomplishments, which are associated with feelings of pleasure (liking) and incentive salience attribution (wanting) (Depue & Collins, 1999), the latter of which is most heavily involved in compulsive behavior. Wanting can therefore result in goal-oriented behavior in absence of liking, but also subconsciously, as the underlying psychological processes of impulse buying can occur in the absence of conscious awareness of wanting (Jones, Reynolds, Weun, & Beatty, 2003). Therefore, consumers exposed to active or energetic brands may buy impulsively as a manifestation of the incentive salience attribution, especially if their extravert personality aligns with the personality of the brand. Considering that Activity is the brand personality dimension which corresponds with Extraversion, the predicted relationship is as follows:

H_1: The higher the degree of Activity, the higher the degree of impulse purchase intention.

Agreeableness – Aggressiveness

Agreeableness is characterized by, among other things, authenticity, loyalty, trust, compliance and modesty (McCrae & Costa Jr., 1997). The link between agreeableness and impulse buying can be established via the concept of "stability" (DeYoung, 2010). People with Agreeable personalities tend to practice self-

constraint, and are generally consistent in their emotions, motivations and relationships with others (Digman, 1997), and can even be found guilty of placing the needs of others before their own. Moreover, such individuals are more inclined to consciously limit their impulses to avoid the consequences or negative stigma associated with exhibiting such behavior (DeYoung, 2010). Thus, a negative relation can be expected to exist between Agreeableness and impulse buying.

In the context of brands, the relevant personality dimension is Aggressiveness. It is important to note that the term is the inverse of Agreeableness (higher Agreeableness = lower Aggressiveness), its counterpart or equivalent in the Big Five traits of human personality, but both capture the same personality. A brand that is perceived to convey an aggressive personality is therefore likely to be considered abrasive, unstable, and indicative of a negative consumer-brand relationship. Some research has used a more literal interpretation to account for the negative connotation of the dimension, replacing Agreeableness with the term Annoying (Smit, Van den Berge, & Franzen, 2002). Therefore, the predicted relationship is as follows:

H_3: The higher the degree of Aggressiveness, the lower the degree of impulse purchase intention.

Conscientiousness – Responsibility

People that are conscientious have no qualms against following rules and regulations and conforming to norms and standards (Hogan & Hogan, 2007). Their characteristics include thoroughness, vigilance and they assign great value to competence, order, achievement and self-discipline. Thus, they are less inclined to make unnecessary purchases (Verplanken & Sato, 2011) as they prefer planning, preparing and deliberating their behavior (Carver, 2005). Conclusively, based on the theoretical expectations, Conscientiousness can be expected to relate negatively with impulse buying. In the context of brands, the corresponding Responsibility dimension can therefore be expected to mirror this relationship, resulting in the following hypothesis:

H_1: The higher the degree of Responsibility, the lower the degree of impulse purchase intention.

Emotional Stability / Neuroticism – Emotionality

Neuroticism is characterized by several characteristics such as impatience, increased sensitivity to stress, and a weakened ability to control urges (Olsen, Tudoran, Honkanen, & Verplanken, 2016, p. 40). Neurotic individuals lacking control are therefore more spontaneous, careless, and exhibit a decreased likelihood to

plan. Lack of control can therefore be considered a potential factor of impulse buying (Youn & Faber, 2000). In addition, such individuals have increased propensity to experience negative emotion and mood states, further encouraging escapist behavior such as engaging in impulsive behavior. This is augmented by the desire to have their wants and needs satisfied immediately (Youn & Faber, 2000), while avoiding a purchase altogether can also have negative consequences, due to the fear of missing out when these desires are not satisfied.

Neuroticism seems to be a strong predictor of impulsive behavior, which is verified by past research. Several theoretical constructs include impulsiveness as a facet of neuroticism (Costa & McCrae, 1992) or emotional stability (DeYoung, 2010). In fact, in the UPPS model (Whiteside & Lynam, 2001), neuroticism is shown to be "one of the traits [in the Big Five] most directly related to impulsivity" (Olsen, Tudoran, Honkanen, & Verplanken, 2016, p. 40). Consequently, neuroticism is expected to have a strong, positive effect on impulse buying, and the corresponding brand personality of Emotionality can be expected to mirror this relationship.

H_5: The higher the degree of Emotionality, the higher the degree of impulse purchase intention.

Openness (to experience) – Simplicity

Openness is characterized by the extent to which an individual requires intellectual challenges, change and variety (Olsen, Tudoran, Honkanen, & Verplanken, 2016). Openness shares similarities with Extraversion and, in Big Five theory, share the Plasticity dimension; an indication of one's inclination for exploration and trying new things (DeYoung, 2010). This similarity may lead one to anticipate openness to have a positive effect on impulse buying; which past research indicates would be a misconception. Studies have shown that people who exhibit characteristics attributed to the Openness dimension are more likely to be conscious of their own feelings, and this ability to self-reflect may impede impulsive behavior (DeYoung, 2010). Hence, in context of the theory, a negative correlation is predicted to exist between Openness and impulse buying. This yields the following hypothesis in relation to the corresponding brand personality dimension of Simplicity:

H_4: The higher the degree of Simplicity, the lower the degree of impulse purchase intention.

In addition to theoretical expectations, Verplanken & Herabadi's (2001) study on IBT tested the correlation between impulse buying and the Big Five, with impulse buying correlating positively with Extraversion and inversely with Conscientiousness and Autonomy (Verplanken & Herabadi, 2001, p. 15). Olsen et al. (2016) validate these results, as Extraversion and Conscientiousness were found to exhibit similar behavior in their study, while a positive and significant correlation with Neuroticism, and an inverse, but non-significant, correlation between openness and impulse buying were also uncovered (Olsen, Tudoran, Honkanen, & Verplanken, 2016). No correlation was found between the Agreeableness dimension and impulse buying in either of the two studies.

The compiled results of both studies are found in Table 1. Due to the BPS of Geuens et al. showing strong affinity with the Big Five human personality construct, the table mirrors the direction of the correlation effect found in the two studies onto the brand personality construct for the sake of hypotheses development. The directions of the effects are in line with the previously ascertained theoretical expectations.

Correlation Effect	***The Big Five***		***BPS of Geuens et al.***
Positive	Extraversion	⟷	Activity
No correlation	Agreeableness	⟷	Aggressiveness
Negative	Conscientiousness	⟷	Responsibility
Positive	Neuroticism	⟷	Emotionality
Negative	Openness	⟷	Simplicity

Table 1: The complied results of two studies testing the relationship between impulse buying and the Big Five human personality traits. Source: (Verplanken & Herabadi, 2001), (Olsen, Tudoran, Honkanen, & Verplanken, 2016).

2.4.2 Sales Channel

Due to a wide array of factors which could potentially influence the sales channel moderator as previously discussed, (see 2.3), the only sensible prediction that can be made is that impulse buying will differ between the two platforms. Future research could assess the impact of specific elements of the sales channel by comparing the impact of promotions online and offline, for example. In the case of the current study however, when examining the channel in its entirety, there are too many factors to consider to make a reasonable prediction as to the direction of the effect, hence the following hypotheses:

H_6: H_1 is moderated by the sales channel.

H_7: H_2 is moderated by the sales channel.

H_8: H_3 is moderated by the sales channel.

H_9: H_4 is moderated by the sales channel.

H_{10}: H_5 is moderated by the sales channel.

2.4.3 Internal Cues of Impulse Buying

When an individual is more responsive to their Affective state and less so to their Cognitive state, impulse buying becomes more probable, as consideration and forethought is inhibited by a strong urge to buy. This is verified by past research which has found impulse buying to relate positively to Affective state and negatively to Cognitive state (Rook D. W., 1987), (Dholakia, 2000), (Youn & Faber, 2000), (Dawson & Kim, 2009), resulting in the following hypotheses:

H_{11}: There is a negative relationship between a person's Cognitive State and impulse purchase intention.

H_{12}: There is a positive relationship between a person's Affective State and impulse purchase intention.

2.5 Conceptual Model

The relevant hypotheses of the current study are conceptualized below in Figure 7. These hypotheses will be addressed to answer the following research question: which brand personality dimension should a firm employ to encourage consumer IPI online and offline? The study is designed to investigate what effect an external trigger; brand personality, and internal triggers; cognitive and affective states, have on impulse buying. In addition, the potential moderating effect of the sales channel; online and offline will be examined.

The theoretical framework employed in this study is based on the consumption impulse formation enactment (CIFE) model, as originally formulated by Dholakia (2000) and reapplied in numerous studies (Dawson & Kim, 2009), (Park & Lennon, 2004).

Dawson & Kim's (2009) interpretation of the model is of particular interest to the current study, as their model had been revised to fit an online shopping context. Therefore, the current study builds on this revised CIFE model to also allow for testing of the sales channel moderator.

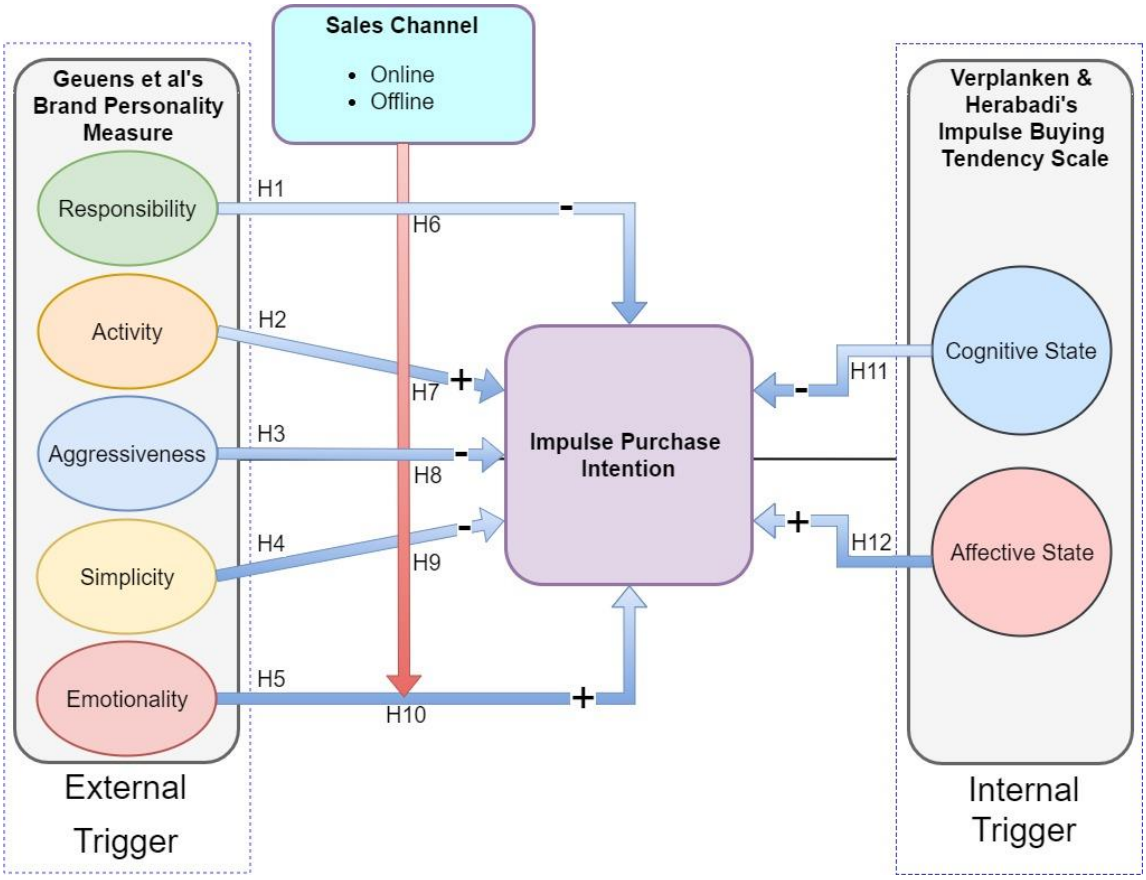


Figure 7: The Conceptual Model

The following table summarizes the hypotheses that will be tested in the analyses that follow.

	Hypotheses
External Trigger	**H_1**: The higher the degree of Responsibility, the lower the degree of IPI
	H_2: The higher the degree of Activity, the higher the degree of IPI
	H_3: The higher the degree of Aggressiveness, the lower the degree of IPI
	H_4: The higher the degree of Simplicity, the lower the degree of IPI
	H_5: The higher the degree of Emotionality, the higher the degree of IPI
Sales Channel	**H_6**: H_1 is moderated by the sales channel.
	H_7: H_2 is moderated by the sales channel.
	H_8: H_3 is moderated by the sales channel.
	H_9: H_4 is moderated by the sales channel.
	H_{10}: H_5 is moderated by the sales channel.
Internal Trigger	**H_{11}:** There is a negative relationship between a person's Cognitive State and IPI
	H_{12}: There is a positive relationship between a person's Affective State and IPI

3. Methodology

For hypotheses testing, a product category needs to be selected that encompasses a wide range of brand personalities. Subsequently, a pre-test will be completed for two reasons. The first is to test which scale, Aaker's (1997) or Geuens & colleagues (2009) BPS is the more reliable rendition. The second reason is to establish which brands within the selected product category best reflect different personality dimensions by comparing their mean personality scores, comprised of the summated facet scores.

3.1 Product Category Selection

Chocolate is the product category of choice and is employed throughout this study due to several reasons. First and foremost, chocolate is a relatively inexpensive FMCG, making it a product that consumers will likely purchase impulsively. This is verified by past research which found that 85% of all candy and gum purchases are made on impulse (POPAI/Dupont, 1978). Secondly, chocolate is generally enjoyed, coveted and is a product that many consumers are familiar with (Rozin, Levine, & Stoess, 1991) and chocolate bars are sold both online and offline, therefore comparisons can be made across sales channels.

3.2 Pretest

Before addressing the research question and investigating the potential link between different brand personalities and impulsive buying tendency, it is necessary to ascertain the appropriate stimuli and measurement scale. Thus, the objective of the pretest is to differentiate ten different chocolate brands on both Aaker's (1997) and Geuens & colleagues' (2009) BPS. Furthermore, both BPS's need to be mapped and tested for reliability in the context of chocolate brands. Cronbach's alpha will be used to assess whether it is appropriate to summate the facets. Once the reliability has been checked, the means of the 15 facets of Aaker's (1997) BPS and means of the 12 facets of the BPS of Geuens et al. (2009) will be summated per brand to form dimensions. The brand scores on each dimension will be tested via a repeated measures ANOVA to check whether the chocolate brands have significant diversity in their personalities. Brands that fail to meet the criteria will be eliminated and omitted from the main study that follows, thus, the pretest is exploratory in nature.

3.2.1 Brand Selection

In terms of the products used as stimuli, the study will employ chocolate bars as the exclusive product category of interest, as opposed to including all types of chocolate, because cross channel and cross scenario comparisons are facilitated in this manner. Ten chocolate brands were selected with varying countries of origin, packaging, colors, logos and price points. This was done to capture the various forms which the personality of a brand can undertake within a brand personality spectrum, even within the same product category.

Several criteria need to be met by the stimuli; brands must be salient and well-known; therefore, brand familiarity will be tested. This is necessary because familiarity, or lack thereof, can influence the respondent's opinion and consequently, their perception of a brand's personality (Alba & Hutchinson, 1987). A low brand familiarity score will result in the relevant brand being eliminated from testing.

3.2.2 Design

The instruments used to determine the brand personalities of the different chocolate brands in this study are the BPS, as first formulated by Aaker (1997), and improved by Geuens et al. (2009). Results will be compared between the two. All respondents were given a self-administered survey, a sample of which can be found in Appendix A.1.

Respondents were exposed to ten different chocolate brands and the personality of each was to be derived by their own perception of the brand. Stimulus material was provided to aid respondents in evoking memories and associations that they may have with a brand. The stimulus consisted of a collage of the chocolate brand in question and its products, packaging, logo and screenshots of their online / offline store channels where applicable. After exposure to the brand-specific stimuli, respondents were asked whether they were familiar with the brand, followed by a request to imagine the brand as a person (Aaker J. , 1997);

To assess the perceived personality of the brand in question, 15 facets, corresponding to the 5 dimensions of Aaker's (1997) BPS (figure 4) and 12 facets corresponding to the 5 dimensions of Geuens et al. (2009) BPS (figure 5) were used. Each facet was measured on a 7-point Likert scale ranging from 1 – not characteristic of the brand to 7 – very characteristic of the brand.

Once the reliability of each dimension had been checked, each trait value was calculated as a mean of all the subcomponents' loadings in the form of a summated scale (Janssens, Wijnen, De Pelsmacker, & Van Kenhove, 2008, pp. 276-278).

To reduce the response bias and improve the validity of the pretest, each respondent was exposed to the stimulus material, which includes brand familiarity testing and the personality assessments of the chocolate brand, in a randomized sequence. The opening and closing statements, as well as the questions of a demographic nature, were not randomized.

3.2.3 Sample

A convenience sample was obtained. The survey was distributed via a variety of social media channels. The sample consisted of 63 students between the ages of 20 and 28. More than half of the respondents was male (53%.) The average age of the respondents was 24.3 years old. In terms of highest level of education obtained, 4.76% of respondents had obtained a High School diploma, 60.3% had received a bachelor's degree (HBO or university), and 34.9% had obtained a master's degree. Respondents rated ten chocolate brands on 27 facets; 15 from Aaker (1997) and 12 from Geuens et al. (2009), resulting in 17,010 observations.

3.2.4 Scale reliability

Scale reliability needs to be tested to check whether summating the facets is acceptable; therefore, Cronbach's alpha will be consulted. This method is used to examine to what extent the items on a scale are measuring the same underlying dimension. The value of alpha lies between zero and one, and the closer to one, the more reliable the scale.

As is evident in Table 2, both scales performed well in terms of the degree of agreement among respondents, with eight out of ten brands achieving acceptable scores. Due to poor performance, the brands M&M's and Godiva are to be removed and will play no further part in this study. The former suffers from poor alpha scores on both BPS's while the brand familiarity of the latter is insufficient; only 37% of respondents are familiar with the brand. For all other chocolate brands, familiarity was at least 83%. The scale reliabilities of the different dimensions are acceptable, and most of the dimensions exceed an alpha score of 0.70, the only exception being Aaker's Sincerity dimension with an alpha of 0.693. Although a value of 0.70 is widely regarded as the minimum acceptable value of alpha (Cortina, 1993), (Nunnally, 1978), others claim

an alpha greater than 0.60 is also sufficient (Janssens, Wijnen, De Pelsmacker, & Van Kenhove, 2008, p. 274). Hence, although the reliability of the *Sincerity* dimension could be improved by omitting facets with a low alpha score, a value that is only marginally removed from a score of 0.70 is considered satisfactory. Conclusively, the results indicate that it is acceptable to proceed and summate the facets to derive the average score per dimension.

BRAND	BRAND PERSONALITY SCALES									
	AAKER					GEUENS ET AL.				
	Sincerity	Excitement	Competence	Sophistication	Ruggedness	Responsibility	Activity	Aggressiveness	Simplicity	Emotionality
Milka	0.682	0.876	0.817	0.798	0.851	0.869	0.866	0.851	0.795	0.814
Lindt	0.699	0.837	0.822	0.863	0.819	0.812	0.802	0.820	0.794	0.851
Tony Chocolonely	0.675	0.822	0.780	0.827	0.855	0.810	0.811	0.823	0.841	0.817
Cote D'or	0.687	0.875	0.812	0.842	0.802	0.818	0.765	0.846	0.812	0.864
Ferrero	0.705	0.866	0.809	0.865	0.785	0.787	0.819	0.792	0.830	0.870
Mars	0.695	0.811	0.767	0.889	0.779	0.749	0.714	0.841	0.848	0.882
Merci	0.711	0.713	0.761	0.822	0.779	0.719	0.835	0.817	0.818	0.868
Bounty	0.691	0.770	0.699	0.855	0.732	0.691	0.692	0.781	0.870	0.827
~~**M&M's (omitted)**~~	~~0.655~~	~~0.683~~	~~0.666~~	~~0.562~~	~~0.673~~	~~0.540~~	~~0.648~~	~~0.556~~	~~0.653~~	~~0.458~~
~~**Godiva (omitted)**~~	~~0.668~~	~~0.520~~	~~0.735~~	~~0.904~~	~~0.638~~	~~0.521~~	~~0.720~~	~~0.592~~	~~0.464~~	~~0.505~~
Average α	0.693	0.821	0.783	0.845	0.800	0.782	0.788	0.821	0.826	0.849

Table 2: Cronbach's Alpha of Aaker's BPS & Geuens & colleagues' BPS per chocolate brand. Average alpha excludes the scores of M&M's and Godiva.

3.2.5 Results

Following the scale reliability assessment, the dimensions were tested to investigate to what extent the chocolate brands differed significantly from each other in their averaged perceived personality scores. A repeated measures ANOVA was performed per dimension with a Greenhouse-Geisser correction (see Appendix A.2 for an example of the SPSS output). Table 3 summarizes the results of the eight ANOVA analyses.

DIMENSIONS		BRANDS								
		Bounty	Côte-d'or	Ferrero Rocher	Lindt	Mars	Merci	Milka	Tony's Chocolonely	*p-value*
AAKER BPS	**Sincerity**	5.04	4.86	3.15	4.13	4.00	5.81	4.87	5.75	*< 0.0005*
	Excitement	4.11	4.36	4.23	3.90	2.89	3.92	4.27	5.62	*< 0.0005*
	Competence	2.62	5.17	4.79	5.22	3.13	5.13	4.30	5.17	*< 0.0005*
	Sophistication	2.62	4.69	5.66	5.89	1.95	5.83	3.85	4.44	*< 0.0005*
	Ruggedness	2.10	3.73	1.49	2.44	1.66	1.40	2.57	3.42	*< 0.0005*
GEUENS ET AL. BPS	**Responsibility**	5.02	5.88	3.93	3.27	3.93	4.88	4.38	5.96	*< 0.0005*
	Activity	2.04	5.00	5.15	6.05	2.89	3.66	3.93	6.09	*< 0.0005*
	Aggressiveness	1.43	1.64	1.64	2.99	1.44	1.40	1.94	1.51	*< 0.0005*
	Simplicity	6.25	3.06	3.50	2.13	5.42	4.39	6.07	4.10	*< 0.0005*
	Emotionality	3.80	4.95	5.06	6.02	1.77	6.13	3.15	5.73	*< 0.0005*

Table 3: Summary of results obtained using ANOVA with repeated measures. Cells are mean personality scores on 7-point Likert scales. P-values refer to ANOVA results and portray the significance of the difference in scores on a dimension across brands.

The repeated measures ANOVA with Greenhouse-Geisser correction determined that mean brand personalities differed statistically significant across brands for both Aaker's and Geuens & colleagues' BPS. Results of the pre-test indicate that the eight remaining brands are suitable for use in the main study that follows.

3.3 Main Study

The current research has two objectives. The first is to investigate whether impulsive buying intention can be influenced by the personality of a brand, and the second is to examine whether this relationship differs between the online and offline environment. To achieve this, the remaining chocolate brands, as determined by the pre-test, will be employed to test IPI in hypothetical buying scenarios. Furthermore, the personalities of brands will be retested to ensure personality perception is in line with previous findings, and factors relating to impulse buying will be measured.

At its core, the current research revolves around three factors that could potentially influence impulsive buying; (1) the external trigger; varying brand personalities, (2) the sales channel (online versus offline), and (3) an internal trigger, reliant on an individual's cognitive and affective states. These three factors

correspond with the hypotheses previously established and are based on theoretical constructs and scales. The theoretical foundation and instruments utilized to measure each of these factors will now be discussed.

3.3.1 Design

3.3.1.1 External Trigger Cue of Impulse Buying

For this portion of the study, the decision was made to drop Aaker's BPS in favor of Geuens & colleagues' BPS for several reasons. As previously stated, Geuens & colleagues' BPS superiority is primarily due to its close correspondence with The Big Five personality traits. The results of a study undertaken by Verplanken & Herabadi (2001) suggest "that IBT has a strong basis in personality" (Verplanken & Herabadi, 2001). Therefore, due to the results of the pre-test and the Cronbach's alpha score of both scales, Aaker's BPS will be omitted as the measure was found to be less reliable than Geuens & colleagues' BPS in this context.

To determine the effect of the external trigger cue brand personality on impulse buying, hypothetical buying scenarios are developed based on the impulse buying scenario of Rook and Fisher (1995); the use of which has been well documented in academic literature (Dholakia, 2000), (Luo, 2005). In the original scenario (Appendix B), respondents were asked to assess an imaginary shopping situation where a college student, Mary[2], seeks to purchase an item of clothing in a brick-and-mortar store. Although Rook and Fisher provide the theoretical construct to measure impulse buying, it is necessary to revise the scenario to meet the objectives of this study for several reasons. First, the product category is dissimilar. This study examines the FMCG segment; chocolate brands more specifically, as opposed to apparel. Second, the original scenario is limited to an offline interaction in a brick-and-mortar store. To allow for comparison of impulsive buying across sales channels, an additional online scenario is required.

It is important to note that despite these alterations, for all intents and purposes, the core components of the original scenario are present. Key elements prevalent in Rook and Fisher's (1995) original buying scenario must carry over to the adapted buying scenario to preserve the validity of the construct. Table 4 summarizes the relevant external precursors of the original buying scenario and outlines, per feature, the relevant research paper, and the managerial implications of said research. This is followed by the means of

[2] In Rook and Fisher's (1995) original buying scenario, half of the sample was exposed to an imaginary female character; Mary, the other half a male imaginary character; Bob. See Appendix B for more details.

implementation in the hypothetical buying scenarios employed in Rook and Fisher's scenario, and the manner of implementation in the online and offline scenarios of this study. This section provides excerpts directly from the stimulus material provided to respondents in each respective scenario via the survey.

Theory	Study	Managerial Implications	In Practice		
			Rook and Fisher (1995) Scenario	This Study	
				Offline Scenario	Online Scenario
Time and financial constraint	(Beatty & Ferrell, 1998)	Time available positively impacts time spent browsing which in turn leads to an increase in the felt urge to buy impulsively. Money available has a direct and positive impact on IB.	"*It is two days before Mary gets her next paycheck and she has only $25 left for necessities*"	"*If you purchase only the items on your list, the €50 on your debit card will be sufficient." […] "you only expect to receive your paycheck in two days.*"	"*You only have €50 left on your debit card for necessities and you will receive your paycheck in two days.*"
Promotional stimuli	(Piron, 1991)	People are more inclined to make impulsive purchases when an item is on sale.	"*Mary sees a great looking sweater on sale*"	"*While you are placing your items on the conveyor belt at the checkout counter, you see a special offer*"	"*As you proceed to finalize your order, you are presented with the following special offer*"
Alternative means of payment	(Bernthal, Crockett, & Rose, 2005)	People with access to credit cards are more inclined to make impulse purchases.	Paying with a credit card is amongst the choice alternatives.	"*If you spend more than €50 you will need to use a credit card to fulfill the payment.*"	"*If you spend more than €50 you will need to use a credit card to fulfill the payment.*"
Buying causes more buying	(Hoch & Loewenstein, 1991)	Found a possible link between impulsiveness and propensity to buy again. Highly impulsive individuals are likely to purchase even more following their initial impulse purchase.	Amongst the choice alternatives: "*5. buying these plus matching slacks and a shirt, also with a credit card.*"	Amongst the choice alternatives: "*5. I buy several chocolates and a pack of gum in addition to all my original groceries and I pay with a credit card.*"	Amongst the choice alternatives: "*5. I buy several chocolates and a pack of gum in addition to the items already in my basket and I pay with a credit card.*"
Social Shopping	(Luo, 2005)	People are more inclined to purchase impulsively in the presence of their friends.	"*After work, she goes with her friend Susan to the mall"*	"*You and a friend are hosting a dinner party tomorrow night at your home.*"	"*You and a friend are hosting a dinner party tomorrow night at your home.*"

Table 4: The relevant external precursors of impulse buying. Juxtaposes the scenarios employed in this study with Rook and Fisher's original buying scenario.

3.3.1.2 The Sales Channel

Having considered the theoretical backing of Rook and Fisher's original buying scenario and establishing the relevant concepts, two scenarios are rendered. The offline scenario simulates the experience of shopping in a supermarket and being exposed to stimuli in the form of different chocolate brands. The online scenario replicates the same experience but in an online setting, namely the checkout page one sees when shopping for groceries from an online supermarket, yielding the following:

Offline Scenario	**Online Scenario**
Imagine that you find yourself in the following scenario: You and a friend are hosting a dinner party tomorrow night at your home. Together you are shopping at the local supermarket to purchase the items that you need for the event. You came prepared and brought a shopping list comprised of items that you need for the party. If you purchase only the items on your list, the €50 on your debit card will be sufficient. If you spend more than €50 you will need to use a credit card to fulfil the payment as you only expect to receive your pay check in two days. While you are placing your items on the conveyor belt at the checkout counter, you see a special offer for a [BRAND] chocolate bar: [FOR STIMULUS MATERIAL PROVIDED, SEE APPENDIX C.1]	Imagine that you find yourself in the following scenario: You and a friend are hosting a dinner party tomorrow night at your home. Together you are shopping online to have the groceries for the dinner delivered straight to your doorstep. You have promised to pay for the expenses but you only have €50 left on your debit card for necessities and you will receive your pay check in two days. If you spend more than €50 you will need to use a credit card to fulfil the payment. You have filled your online shopping basket with all the things that you need for the dinner amounting to a total of €50. As you proceed to finalize your order, you are presented with the following special offer: [FOR STIMULUS MATERIAL PROVIDED, SEE APPENDIX C.1]
Choice Alternatives	
What would you do in this situation? 1. I ignore the opportunity and I do not buy the chocolate. 2. I want the chocolate, but I choose not to buy it. 3. I buy the chocolate instead of one of the items that was on my shopping list. 4. I buy the chocolate in addition to all my original groceries and pay with a credit card. 5. I buy several chocolates and a pack of gum in addition to all my original groceries and I pay with a credit card.	What would you do in this situation? 1. I ignore the opportunity and I do not buy the chocolate. 2. I want the chocolate, but I choose not to buy it. 3. I remove on of the items from my basket and I buy the chocolate instead. 4. I buy the chocolate in addition to the items already in my basket and I pay with a credit card. 5. I buy several chocolates and a pack of gum in addition to the items already in my basket and I pay with a credit card.

The choice alternatives were derived from Rook and Fisher's original scenario (Appendix B) but have been modified to fit the product category of interest; chocolate bars. Nevertheless, the scale maintains its core design, and each option represents varying levels of buying impulsiveness. From a low, to a high impulsiveness score, 1 indicates low and 5 indicates high impulsiveness.

The survey included stimulus material of the chocolate brand in question in the relevant context; either the checkout counter at a brick-and-mortar supermarket or the basket of an online supermarket's webshop. Past research has also used artificial webshops and brick-and-mortar stores in relation to impulse buying (Parboteeah, Valacich, & Wells, 2009), (Wells, Parboteeah, & Valacich, 2011).

3.3.1.3 The Internal Trigger

To test the effect of internal cues of impulse buying, this study will employ a scale developed by Verplanken & Herabadi (2001) known as the IBT Scale. As previously mentioned, the scale breaks down impulse buying into two internal determinants. The first determinant measures cognitive aspects of impulse buying which encompasses "the lack of planning and deliberation when making a purchase". The second measures affective aspects such as "feelings of pleasure and excitement, an urge to buy, the difficulty to leave things, and possible regret afterwards" (Verplanken & Herabadi, 2001). The final scale (see Appendix D) consists of 20 questions, 10 per determinant, measured on a 7-point Likert scale.

3.3.2 Implementation

The survey exposes each respondent to a randomized selection of two chocolate brands out of a possible eight, in two different sales channels; one brand in an online scenario and one brand in an offline simulated sales channel. Exposure is limited to two brands per respondent to reduce survey length and respondent tediousness. The sequence of exposure to the sales channel; whether the online or offline channel is shown first or second to the participant, is also randomized by the survey software. Each brand has their own online and offline brand page within the survey, resulting in 16 possible brand pages (8 brands, 2 sales channels). Brand pages consist of two parts, section A and B.

Section A tests the respondents' perception of the chocolate brand's personality. Therefore, in a similar fashion as the pretest, stimulus material is provided per brand, comprised of its products, logo, packaging and screenshots of the online / offline sales channels where applicable. Following exposure, respondents are asked to indicate their familiarity with the brand in question on a 7 point Likert scale (see 3.2.1 for the

reasoning). Subsequently, respondents are asked to rate the brand on the 12 facets of Geuens & colleagues' (2009) BPS. Part A is identical in both online and offline scenarios for each brand but differs across brands.

Section B contains the online or offline scenario as derived from Rook and Fisher's (1995) original buying scenario which aims to simulate impulse buying. Following exposure to the online or offline scenario, respondents are asked to indicate their likelihood of impulsively buying the chocolate brand in question, expressed as IPI. Part B therefore differs within brands as each brand has an online and offline buying scenario but each scenario is identical across brands.

3.3.3 Sample

A convenience sample was collected. The survey was distributed via a variety of social media channels and throughout the authors personal social network. 120 responses were collected, 106 of which were useable, yielding 5618 observations. Table 5 contains the demographic profile of the respondents and their past online shopping behavior.

Roughly 60% of respondents were female. Ages ranged from 13 to 86 years old, with an average age of 35, which speaks for the diversity of the sample. This strengthens the generalizability of this study as age has found to have a significant influence on impulse buying (Helmers, Young, & Pihl, 1995), (Wood, 1998). On other hand, more than half of the respondents were in the age group 20-30.

In terms of highest level of education completed, about 14% of respondents had obtained a High School diploma, around 34% had received a bachelor's degree (HBO or university), about 46% had obtained a master's degree, and 3% had obtained their doctorate.

Based on previous research (Burnett, 2006), data was also collected about past online purchases and to what extent these purchases were impulsive. Respondents were asked to indicate, on average, how often they made an online purchase in the past year and how many of those purchases were impulsive. About 95% of respondents, had shopped online to some degree in the past year, while almost 36% was a regular online shopper and had made an online purchase roughly once a month in the same time frame. About 58% of respondents indicated that they had made at least one impulsive purchase in the past twelve months, although the bulk of this statistic is captured by roughly 45% of participants who had not made many (< 40% of total online purchases) impulsive purchases.

	Characteristic	Mean (SD)	Count	Of total (%)
Gender	Total		106	
	Male		42	37.9%
	Female		64	62.1%
Age		34.46 (14.42)		
	< 20		5	4.7%
	20-30		55	51.9%
	31-40		16	15.1%
	41-50		14	13.2%
	51-60		8	7.5%
	> 60		8	7.5%
Highest level of education completed		3.32 (0.89)		
	Less than high school		4	3.8%
	High school graduate		14	13.2%
	Bachelor's Degree (HBO or university)		36	34.0%
	Master's Degree		48	45.3%
	Doctorate Degree		4	3.8%
Online purchases made in the last 12 months		3.28 (1.09)		
	0 times		5	4.7%
	Once every 6 months		22	20.8%
	Every other month		30	28.3%
	Once a month		38	35.8%
	Once a week		9	8.5%
	More than once a week		2	1.9%
Online impulse purchases made in last 12 months		2.70 (0.87)		
	I have never made an online purchase		6	5.7%
	None of my online purchases were impulsive		38	35.8%
	Not many (<40%)		48	45.3%
	Roughly half (40-60%)		11	10.4%
	A lot (60-80%)		2	1.9%
	Almost all (>80%)		1	0.9%

Table 5:Demographic Profile and the Online / Impulsive Shopping Behavior of Respondents

4. Results

The statistical findings are presented in this section. Before proceeding with the testing of the hypothesis, scale reliability needs to be assessed.

4.1 Reliability of the Scales

4.1.1 The Brand Personality Scale of Geuens et al.

Geuens & colleagues' BPS was used to register the respondent's perception of the chocolates brand personality. Aaker's BPS was dropped for reasons previously discussed. The scale reliability of the BPS is tested in this context to check whether summating the different facets that make up the dimensions is acceptable; therefore, Cronbach's alpha is consulted. The results of the analysis can be found in Table 6.

	GEUENS ET AL. BPS DIMENSIONS				
BRAND	Responsibility	Activity	Aggressiveness	Simplicity	Emotionality
Milka	0.848	0.901	0.542	0.683	0.834
Lindt	0.853	0.822	0.644	0.720	0.831
Tony Chocolonely	0.863	0.876	0.528	0.762	0.783
Côte-d'or	0.859	0.927	0.467	0.725	0.752
Ferrero	0.743	0.712	0.345	0.659	0.869
Mars	0.790	0.892	0.773	0.834	0.817
Merci	0.740	0.761	0.530	0.797	0.935
Bounty	0.898	0.813	0.080	0.740	0.868
Average α	**0.824**	**0.838**	**0.489**	**0.740**	**0.836**

Table 6: Cronbach's Alpha of Geuens BPS per Chocolate Brand

The BPS generally performed well in terms of degree of agreement among respondents, the only exception being the aggressiveness dimension. The scale reliabilities of the dimensions are acceptable. Disregarding the aggressiveness dimension, average Cronbach's alpha across all eight brands exceeded 0.7. The poor score attained by the Aggressiveness dimension must be considered when interpreting the results of the

regression analysis that follows. Conclusively, the results indicate that it is acceptable to proceed and summate the facets to acquire the average personality scores of each brand.

4.1.2 Verplanken & Herabadi's IBT Scale

The scale used to measure the internal motivations of impulsive buying also needs to be checked for scale reliability. Cronbach's alpha was checked separately per factor and for the overall scale. The results of the analyses are presented in Table 7.

CRONBACH'S ALPHA	FACTORS	
	Cognitive State	**Affective State**
Per Factor	0.901	0.837
Combined	0.903	

Table 7: Per Factor and Combined Cronbach's Alpha of the IBT Scale

The ten items of a cognitive nature ($\alpha = 0.901$) and the ten items of an affective nature ($\alpha = 0.837$) performed well. All twenty items combined were also found to be highly internally consistent ($\alpha = 0.903$). These results indicate that it is acceptable to average the ten items of a cognitive and the ten items of an affective nature to acquire internal IBT scores.

4.2 Brand Familiarity

The perception of a brand's personality may be affected by a consumer's brand familiarity and therefore requires checking. Brands that score low will be removed. Respondent familiarity with all eight brands was found to be acceptable. Table 8 shows average brand familiarity across respondents on a 7 point Likert scale and the number of responses per brand. Due to the imperfect randomization of the scenarios that were presented to the respondent (online or offline) within the Qualtrics survey software, the number of responses per chocolate brand is not perfectly distributed.

	CHOCOLATE BRANDS							
	Ferrero Rocher	**Côte-d'or**	**Bounty**	**Tony's Chocolonely**	**Lindt**	**Milka**	**Mars**	**Merci**
Brand Familiarity	5.70	5.12	6.18	5.19	4.92	6.04	6.42	6.04
Number of Responses	27	26	28	27	26	26	26	26

Table 8: Average Brand Familiarity and Number of Responses Per Brand

Seven out of eight brands achieved an average score of at least five, and only Lindt scored marginally less. All eight chocolate brands will be included in the analysis that will follow.

4.3 Brand Personalities

To test for the significance of the difference between the personalities of the chocolate brands, the facets of the BPS of Geuens et al. were summated to form personality dimensions. A repeated measures ANOVA test was performed per dimension with a Greenhouse-Geisser correction (see Appendix C.2 for an example of the SPSS output). Table 9 summarizes the results of the five ANOVA analyses and illustrates the perceived differences between the different brands in terms of the five dimensions of Geuens & colleagues' BPS.

		DIMENSIONS OF THE BPS OF GEUENS ET AL. (2009)				
		Responsibility	**Activity**	**Aggressiveness**	**Simplicity**	**Emotionality**
BRAND	**Côte-d'or**	5.21	4.04	2.69	3.67	3.91
	Milka	4.69	4.10	2.28	3.96	3.89
	Tony's Chocolonely	4.49	5.35	3.30	2.65	3.20
	Mars	4.28	3.94	4.02	4.28	2.56
	Bounty	4.15	4.14	2.78	3.89	3.96
	Merci	4.15	3.28	2.26	3.63	5.82
	Lindt	3.98	4.12	3.22	3.17	4.87
	Ferrero Rocher	3.53	3.06	3.13	3.04	5.11
GREENHOUSE-GEISSER	**df = F**	F(3.439, 89.407) = 26.545	F(4.826, 125.489) = 6.385	F(5.221, 135.751) = 5.807	F(4.903, 127.470) = 3.621	F(5.670, 147.408) = 16.064
	p-value	< 0.0005	< 0.0005	< 0.0005	0.005	< 0.0005

Table 9: Summary of results obtained using ANOVA with repeated measures. Cells are mean personality scores on 7-point Likert scales. P-values refer to ANOVA results and portray the significance of the difference in scores on a dimension across brands.

The repeated measures ANOVA with Greenhouse-Geisser correction determined that mean brand personalities differed statistically significant across brands on the BPS of Geuens et al. However, it must be noted that due to lacking scale reliability, caution must be taken when interpreting the Aggressiveness dimension.

4.4 Analysis

The following table contains the descriptive statistics of the relevant variables that will be employed in further analysis.

		Mean	Variance	Minimum	Maximum
IPI	Online	1.76	0.96	1	5
	Offline	1.78	0.97	1	5
Responsibility		4.30	1.81	1	7
Activity		4.01	2.32	1	7
Aggressiveness		2.97	1.82	1	7
Simplicity		3.53	2.48	1	7
Emotionality		4.18	3.00	1	7
Cognitive State		3.4	1.37	1.2	6
Affective State		3.39	1.02	1.6	5.9
Brand Familiarity		5.70	2.08	1	7

Table 10: Descriptive Statistics of Variables

To test the hypotheses as illustrated in the conceptual model, a multiple regression analysis is conducted on these variables, the results of which will now be presented.

4.4.1 Regression Equations

Four models were developed to assess the effect of the external determinant, varying dimensions of the brand personality spectrum, and the internal determinant, a person's cognitive and affective state, on IPI.

- Model 1: Includes only the brand personality independent variables (subscript i),
- Model 2: Model 1 in addition to the sales channel independent variable (subscripts i and j)
- Model 3: Supplements Model 2 with the addition of individual-specific independent variables such as internal state and demographic factors (subscript k)
- Model 4: Supplements Model 3 with the addition of the interaction independent variables SalesChannel × PersonalityDimension

Model 3 and 4 control for brand familiarity, gender, age, education, online purchase history, and online impulsive purchase history, as previous studies have found that these factors could influence the main effect.

To enable more concise recommendations in terms of marketing strategy, a natural log transformation is applied to all relevant variables in the regression models. Therefore, the coefficients of the continuous variables are expressed in percentage terms, providing log-log or elasticity interpretations. Categorical variables such as gender, education and brand-specific dummies provide semi-log or growth rate interpretations.

In addition, brand personality dimensions are a sub-component of the intangible / non-product related brand attributes. As a result, there are several other brand-related factors which need to be accounted for during data analysis such as price, users and usage scenario's and the feelings and experiences associated with the brand. The potential effects of these variables will be captured using brand-specific dummy variables.

$$\ln(IPI_{ijk}) = \beta_0 + (\beta_1 \times \ln(Responsibility_{ik}) + \beta_2 \times \ln(Activity_{ik}) + \beta_3 \times \ln(Aggressiveness_{ik}) + \beta_4 \times \ln(Simplicity_{ik}) + \beta_5 \times \ln(Emotionality_{ik}) + \beta_6 Côte\text{-}d'or_i + \beta_7 Bounty_i + \beta_8 Tony's\_Chocolonely_i + \beta_9 Lindt_i + \beta_{10} Milka_i + \beta_{11} Mars_i + \beta_{12} Merci_i + \beta_{13} \times \ln(Familiarity_{ik}) + \beta_{14} Online_j + \beta_{15} \times \ln(Cognitive_k) + \beta_{16} \times \ln(Affective_k) + \beta_{17} Female_k + \beta_{18} \times \ln(Age_k) + \beta_{19} BSC_k + \beta_{20} MSC_k + \beta_{21} PHD_k + \beta_{22} \times \ln(OPH_k) + \beta_{23} \times \ln(OIPH_k)) + \varepsilon$$

Model 3: Multiple regression testing the effect of perceived brand personality dimensions and internal state on IPI. Controlled for brand specific effects, age, education level, online purchase history and online impulse purchase history

The conceptual model put forth by this study proposes that the relationship between perceived brand personality and IPI is moderated by the sales channel (online or offline). The subsequent regression Model 4 supplements Model 3 by also taking the interaction effects into account.

$$\ln(IPI_{ijk}) = \beta_0 + (\beta_1 \times \ln(Responsibility_{ik}) + \beta_2 \times \ln(Activity_{ik}) + \beta_3 \times \ln(Aggressiveness_{ik}) + \beta_4 \times \ln(Simplicity_{ik}) + \beta_5 \times \ln(Emotionality_{ik}) + \beta_6 Côte\text{-}d'or_i + \beta_7 Bounty_i + \beta_8 Tony's\_Chocolonely_i + \beta_9 Lindt_i + \beta_{10} Milka_i + \beta_{11} Mars_i + \beta_{12} Merci_i + \beta_{13} \times \ln(Familiarity_{ik}) + \beta_{14} Online_j + \beta_{15} \times \ln(Cognitive_k) + \beta_{16} \times \ln(Affective_k) + \beta_{17} Female_k + \beta_{18} \times \ln(Age_k) + \beta_{19} BSC_k + \beta_{20} MSC_k + \beta_{21} PHD_k + \beta_{22} \times \ln(OPH_k) + \beta_{23} \times \ln(OIPH_k)) + \beta_{24} \times \ln(Responsibility_{ik}) \times Online + \beta_{25} \times \ln(Activity_{ik}) \times Online_j + \beta_{26} \times \ln(Aggressivness_{ik}) \times Online_j + \beta_{27} \times \ln(Simplicity_{ik}) \times Online_j + \beta_{28} \times \ln(Emotionality_{ik}) \times Online_j) + \varepsilon$$

Model 4: Multiple regression testing the effect of perceived brand personality dimensions and internal state on IPI and the moderating effect of the sales channel. Controlled for brand specific effects, age, education level, online purchase history and online impulse purchase history

The following table provides the operational description of the variables used in the regression models.

IPI	Impulse Purchase Intention. Likelihood of purchasing the chocolate measured on a Likert scale (1-5) as originally conceived by Rook & Fisher (1995)
Responsibility / Activity / Aggressiveness / Simplicity / Emotionality	Perceived brand personality of the chocolate brand in question along the relevant dimension of the BPS of Geuens et al. (2009).
Côte-d'or / Bounty / Tony's Chocolonely / Lindt / Milka / Mars / Merci	Dummy variables which capture brand specific effects. 1 if the chocolate brand in question was displayed in a hypothetical buying scenario to the respondent, 0 if otherwise. The Ferrero Rocher brand was kept as the baseline brand.
Familiarity	Respondents were asked to indicate their familiarity with the chocolate brand in question on a Likert Scale (1-7) ranging from not familiar at all to extremely familiar.
Online	1 if the hypothetical scenario presented was online (online grocery store), 0 if the scenario was offline (brick-and-mortar grocery store).
Cognitive / Affective State	The summated Cognitive and Affective scores. Each factor is comprised of 10 questions on a Likert scale which ranges from 1-7. 1 = strongly disagree, 7= strongly agree, formulated by Verplanken & Herabadi (2001).
Female	1 if the respondent was female, 0 if otherwise (male).
Age	The age of the respondent in years.
BSC / MSC / PHD	Education dummy variables, with 1 indicating that the respondent had obtained either their Bachelor's degree (HBO or University) / Master's degree / PhD, 0 for all three indicated the baseline; respondents who had obtained at least a High School diploma.
OPH	The respondent's self-reported online purchase history measured on a Likert scale (1-6), based on past research (Burnett, 2006).
OIPH	The respondent's self-reported online impulse purchase history measured on a Likert scale (1-6), based on past research (Burnett, 2006).

Table 11: Operational description of variables in the regression models.

Following initial testing, four outliers (observations 48, 91, 120 and 123) were identified and omitted from any further analysis due the difference between their actual and predicted values of IPI falling outside the range of three standard deviations from the mean residual. Standard errors are clustered at the respondent level and adjusted to account for heteroscedasticity, the need for which was largely derived from the fact that each respondent provides two observations; two randomly selected chocolate brands out of a possible eight. Furthermore, a pooled, multiple linear regression is used as this allows for the inclusion of respondent related variables. This counters the argument for using respondent dummies and testing for joint significance instead as the method employed in this study permits testing of respondent-constant factors

such as gender, age, education and most importantly, the individual's internal determinants of impulse purchasing; one's cognitive and affective state. Additionally, considering the obtained sample size of 106 respondents, opting for respondent level dummy variables would add too many variables to the model, expending degrees of freedom.

4.4.2 Hypotheses Testing

Model 3, $F(23, 184) = 4.076$ $p < 0.0005$, and Model 4, $F(28, 179) = 3.295$ $p < 0.0005$, have both been found to be significant. These results denote that roughly 34% of the variation in IPI can be explained by the predictor and indicator variables included in both models. Table 12 summarizes the results obtained.

		Model 1		***Model 2***		***Model 3***		***Model 4***	
		β	**p**	**β**	**p**	**β**	**p**	**β**	**p**
	Constant	-.586	.006	-.586	.007	-.038	.939	-.035	.949
ik	Score Responsibility	.137	.148	.137	.155	.098	.293	.113	.384
ik	Score Activity	.168	.070 [T]	.168	.071 [T]	.192	.032**	.155	.250
ik	Score Aggressiveness	.068	.401	.068	.404	.010	.894	.008	.930
ik	Score Simplicity	-.019	.803	-.019	.805	-.035	.616	-.078	.466
ik	Score Emotionality	.238	.002**	.238	.003**	.225	.002**	.254	.020**
ik	Brand Familiarity	.174	.043**	.174	.044**	.252	.004**	.249	.006**
j	Online vs. Offline			.001	.994	-.011	.862	-.069	.852
k	Cognitive State					-.297	.007**	-.292	.009**
k	Affective State					.153	.048**	.193	.098 [T]
ijk	Interaction Responsibility×Online							-.043	.809
ijk	Interaction Activity×Online							.070	.707
ijk	Interaction Aggressiveness×Online							.000	.999
ijk	Interaction Simplicity×Online							.087	.534
ijk	Interaction Emotionality×Online							-.054	.670
	Brand specific effects [a.]	Yes		Yes		Yes		Yes	
	Respondent specific effects [b]	No		No		Yes		Yes	
	R^2	.157		.157		.338		.340	

Note: Dependent Variable: Impulse Purchase Intention * p < .001, ** p < .050, [T] p <.10

[a.] *Brand specific effects include: Côte-d'or, Bounty, Tony's Chocolonely, Lindt, Milka, Mars, Merci*

[b.] *Respondent specific effects include: age, education level, online purchase history and online impulse purchase history.*

[c.] *Observations 48, 91, 120 and 123 were removed (>3 st. devs. from the mean residual).*

[d.] *VIF < 10 and tolerance > 0.2 thus no collinearity was observed.*

Table 12: Results of heteroscedasticity-consistent multiple regression testing brand personality dimensions and IPI

Sales channel has a non-significant moderating effect on the five perceived brand personality dimensions and IPI, which was expected considering the results obtained by Models 2 and 3 where the variable "online" is a non-significant predictor. Thus, H6—H10 are not supported and, due to the poor fit of the sales channel and the interaction terms in Model 4, Model 3 will be used in subsequent hypotheses testing.

In support of hypotheses H_2 and H_5, brand personality dimensions Activity and Emotionality statistically significantly predict IPI. In both cases this effect is positive. As the perceived Activity of a brand increases by 1%, the IPI increases by .19%, ceteris paribus. Likewise, as perceived Emotionality of a brand grows by 1%, there is a .225% increase in IPI, ceteris paribus. The effects of the three remaining brand dimensions; Responsibility, Aggressiveness, and Simplicity are non-significant. Consequently, hypotheses H_1, H_3 and H_4 are not supported.

Both factors of an individual's internal state also statistically significantly predict IPI. As predicted, cognitive items have a negative effect in support of H_{11}, with a 1% increase leading to a .297% decrease in IPI, given that other factors remain unchanged. On the contrary, the affective factor has a positive statistically significant influence, supporting H_{12}. IPI will increase by .153% when an individual's affective state is increased by 1%, ceteris paribus.

In addition, the control variables age, merci, and brand familiarity have a significant effect. A 1% increase of the age of the respondent results in a .237% decrease in IPI while brand familiarity results in a .252% higher propensity when increased by 1%. In terms of the brand-specific effects, Merci is the only brand that is impulsively purchased to a significantly different extent from the baseline brand; Ferrero Rocher. Keeping all other factors constant, Merci has a significantly negative brand specific effect.

The results of the regression analyses in relation to the hypotheses will now be summarized, followed by a discussion of the implications, as well as arguments to explain the findings in greater detail.

4.4.3 Overview of Hypotheses Testing

Table 13 summarizes the results of multiple regression in relation the hypotheses.

	Hypotheses	***Result***
External Trigger	**H_1**: The higher the degree of Responsibility, the lower the degree of IPI	Not supported
	H_2: The higher the degree of Activity, the higher the degree of IPI	Supported
	H_3: The higher the degree of Aggressiveness, the lower the degree of IPI	Not supported
	H_4: The higher the degree of Simplicity, the lower the degree of IPI	Not supported
	H_5: The higher the degree of Emotionality, the higher the degree of IPI	Supported
Sales Channel	**H_6**: H_1 is moderated by the sales channel.	Not supported
	H_7: H_2 is moderated by the sales channel.	Not supported
	H_8: H_3 is moderated by the sales channel.	Not supported
	H_9: H_4 is moderated by the sales channel.	Not supported
	H_{10}: H_5 is moderated by the sales channel.	Not supported
Internal Trigger	**H_{11}:** There is a negative relationship between a person's Cognitive State and IPI	Supported
	H_{12}: There is a positive relationship between a person's Affective State and IPI	Supported

Table 13: Summary of Hypotheses Testing

5. Discussion

5.1 Addressing the research question

The guiding research question throughout this study was the following:

> *WHICH BRAND PERSONALITY DIMENSION SHOULD A FIRM EMPLOY TO ENCOURAGE CONSUMER IMPULSE PURCHASE INTENTION ONLINE AND OFFLINE?*

The study also addressed several sub questions:

1. What means of quantifying brand personality are there and which of these scales provide the most consistent reflection of a consumer's opinion of a brand?
2. In terms of encouraging impulsive buying, are there brand personality dimensions which work equally well online and offline? Which works better in what scenario?
3. What kind of person is more susceptible to succumb to impulsive tendencies? In other words, what are some of the internal characteristics that regulate a person's propensity to exhibit such behavior?

This study's primary objective sought out to test the relationship between different brand personality dimensions on a consumer's IPI and whether this interaction was moderated by the sales channel of the purchase; online or offline. The secondary objective was to verify whether propensity to purchase impulsively was also dependent on internal triggers; Affective and Cognitive states.

In response to the posed research question, results show that impulse buying can indeed be affected by a brand's perceived personality's, depending on the dominant dimension. In hypothetical impulse buying scenarios, chocolate brands that scored high on the Activity or Emotionality dimension are purchased to a greater degree than brands that score low on these dimensions. Respondents are more likely to make purchase decisions with little or no forethought when a product is perceived to be active, dynamic and innovative (activity) or romantic and sentimental (emotionality).

Due to ties between the BPS of Geuens et al. and the Big Five, reasons for succumbing to Active and Emotional brands can be derived from human personality. For brands that are perceived to possess an

Active personality, impulsive behavior is incited by the manifestation of the incentive salience attribution, also known as wanting (Depue & Collins, 1999). Wanting can result in goal-oriented behavior in absence of liking, but also in the absence of conscious awareness (Jones, Reynolds, Weun, & Beatty, 2003). This lack of awareness and deliberation is what makes a person more susceptible to succumb to their urges and buy impulsively. Furthermore, excitement, an important factor of the Activity dimensions, invokes emotions via a mixture of arousal and pleasure (Russel, Weiss, & Mendelsohn, 1989), which, when combined with overstimulation, has been associated with uncontrolled buying in past research (Rook & Fisher, 1995).

Emotional brands, on the other hand, exhibit spontaneity and carelessness characteristics, which capitalize on a person's impatience, increased sensitivity to stress, and a weakened ability to control urges to invoke escapist behavior (Olsen, Tudoran, Honkanen, & Verplanken, 2016). Such escapist behavior can then lead to impulsive buying, and lack of control has been assessed to be an important factor (Youn & Faber, 2000). Previous research has also determined Emotionality to be one of the traits in the brand personality spectrum most directly related to impulsivity (Costa & McCrae, 1992), (Olsen, Tudoran, Honkanen, & Verplanken, 2016, p. 40) or emotional stability (DeYoung, 2010). The current research verifies these findings as emotionality has the strongest effect on IPI out of the five personality dimensions.

Whether a product was hypothetically purchased from an online grocery webshop or a brick-and-mortar grocery store has a non-significant moderating effect on the relationship between perceived brand personality and IPI. This may be because the sales channel variable captures a wide array of effects, as was previously discussed in hypotheses development. Alternate methods will be further examined in the suggestions for future research (see 5.4).

Findings also suggest that internal precursors, which manifest themselves in cognitive or affective states, precede an impulsive purchase. More specifically, an individual who is more receptive to their affective state is more inclined to succumb to impulsive tendencies and to make a purchase. A person that is more susceptible to their cognitive state on the other hand, is less likely to impulsively purchase. In practice, this means that impulsive people are more likely to be sensitive to their emotions and feelings (affective state) relative to people that are not impulsive, which can trigger impulsive behavior. These results corroborate other studies and research undertaken in the field of marketing and consumer behavior allotting these

internal factors as reliable predictors of impulsive behavior (Rook D. W., 1987) (Dholakia, 2000), (Youn & Faber, 2000), (Dawson & Kim, 2009).

Several control variables were also found to have a significant effect. Validating previous findings, age was found to have an inverse relationship with IPI (Wood, 1998). In other words, older people are less likely to impulsively purchase in a brick-and-mortar store or in a webshop than younger people. This may be because young people are more driven by an inclination to seek excitement while possessing a diminished capacity for self-control, which only develops as people grow older and become more risk averse (Steinberg, et al., 2008). Contrarily, brand familiarity has a significant positive effect; people more familiar with a brand are more likely to purchase the brand impulsively. This might be the case for several reasons. Not only can familiarity influence a person's opinion and their ensuing perception of a brand's personality (Alba & Hutchinson, 1987), previous research has also found higher brand familiarity, or brand equity, to correspond to "greater preference and purchase intentions" (Cobb-Walgren, Ruble, & Donthu, 1995, p. 25).

5.2 Implications

5.2.1 Academic

A statistically significant relationship was found between brand personality and IPI, and sheds light on an interaction which has garnered little attention in marketing research. Research undertaken in this study therefore has significant academic implications. This study has reinforced the importance of external influences of impulse buying. Where previous research has focused primarily on internal determinants, current research has shown that impulse buying is more complex and provides partial support for the CIFE model.

This study also further confirms the value of brand personality scales in helping to quantify intangible brand equity assets. The BPS of Geuens et al. has generally been found to be robust, the only exception being the poor performance of Aggressiveness dimension, which could perhaps be explained by the lack of representation in the selected product category, an issue which is further addressed in the limitations of this paper.

5.2.2 Managerial

The product category of chocolate was used as a means of measuring different brand personalities, and conclusions drawn from this study should provide practical value for other FMCG categories. The results of this paper should allow brand managers to further optimize their product portfolio, to better meet the needs of their target audiences by developing strong and favorable brand personalities. A brand manager that is looking to maximize the probability of impulse purchases occurring must therefore employ brand building strategies that enhance a product's active or emotional image.

Armed with this knowledge, brand managers can stimulate impulse buying by adapting the brands marketing communications, and altering their product's packaging and logo's, benefitting the bottom line. In particular, data analysis shows that Merci, captured by the brand-specific variable, had a negative effect on IPI relative to Ferrero Rocher, which should concern brand managers. Perhaps Merci has been positioned deliberately in such a way to cater to other purchase intentions besides those of impulse, but these findings warrant further investigation.

Additionally, this study can help inform policy makers about how consumers are manipulated by brands to alter their behavior, with "concerns increasingly being expressed about an escalation of excess spending" (Xiao & Nicholson, 2013, p. 333) and its consequences (Dittmar, 2001), (Federal Reserve, 2003). Often, impulse purchases are followed by feelings of regret and this study adds to the plethora of research that has gone into studying the consequences of exhibiting behavior with little or no forethought.

5.3 Limitations

Convenience sampling was used a method for respondent selection which imposes limits on the generalizability of the results of this study. This is especially the case when considering that almost half of the respondents (49.1%) had obtained either their Master's degree or PhD, while the national average in the Netherlands is 10.7% for having obtained either (Het Centraal Bureau voor de Statistiek, 2016).

5.3.1 Product Category

There are also several limitations associated with the selected product category which formed the basis of the stimulus material provided to respondents. Using more than one product category exceeds the scope of this study therefore, due to reasons previously mentioned, chocolate was selected as a means of representing

different dimensions along the brand personality spectrum. The issue however, lies in the fact that chocolate is an inherently experiential product, and therefore an experiential purchase. Research has shown that "consumers shop online for goal-oriented, instrumental reasons […] goal-oriented motives are more common among online shoppers than are experiential motives" (Wolfinbarger & Gilly, 2000). This might explain why the type of sales channel failed to significantly moderate the relationship between a brand's personality and IPI of chocolate in this study. Additional testing on a wider range of product categories that address different purchase motivations (functional, symbolic, or emotional) is recommended to mitigate this effect.

In addition, this study must acknowledge that, on the spectrum of brand personality, there is a limited number of personalities a chocolate brand can undertake. Chocolate brands tend to cluster around certain personalities dimensions as they are almost exclusively hedonic, not utilitarian in nature. This may explain why the Aggressiveness dimension was inconsistently perceived in this product category as demonstrated by the poor Cronbach's alpha score obtained. This may diminish the generalizability of the findings to other product segments.

5.3.2 The Dependent Variable

Impulse buying remains a notoriously difficult topic to address. The current study chose to employ the widely accepted hypothetical buying scenarios as developed by Rook & Fisher's for deriving a respondent's hypothetical IPI, and although this provided the theoretical framework for the buying scenario, only 2 out of the 5 personality dimensions were found to have a significant effect. This could perhaps be attributed to the artificial nature of the hypothetical buying scenarios; a concern that previous research employing similar methods (Dawson & Kim, 2009, p. 30), as well as Rook and Fisher (1995) themselves have acknowledged.

Involvement has been found to have a positive effect on the urge to buy (Jones, Reynolds, Weun, & Beatty, 2003), and perhaps a respondent's motivation to make a realistic decision is compromised by their lack of involvement with the scenario. In addition, impulse buying has a negative stigma attached to it (Hausman, 2000), and people have the tendency to only act out on their urges when it is considered appropriate (Rook & Fisher, 1995). Thus, respondents may be inclined to provide socially desirable behavior, instead of their predicted behavior.

In addition, questions remain about whether reported behavior translates to actual behavior. An alternative method is the experimental study. The problem with this method however is the lack of sample size, hindering the ability to extrapolate findings. Furthermore, studies that use experiments to measure impulse buying behavior are plagued with similar concerns about whether actual, unadulterated behavior is being observed (see 2.1.1).

5.4 Future research

In regard to the issue with addressing the sales channels of online and offline as separate and all encapsulating entities, future studies should take the findings of the current research into account. There are several factors which encourage, and several factors which discourage impulsive buying online, resulting in a situation where the effect of one is cancelled out by the other. It is for this reason that future research should focus on the individual components that may be relevant for explaining impulse buying such as anonymity (Koufaris, 2002, p. 210) and ease of access (Burton, 2002, p. 804) which have been found to encourage impulse buying online, or the delay between purchasing and receiving an item (Bayley & Nancarrow, 1998, p. 107) and an increased ability to compare products and stores (Koufaris, Kambil, & LaBarbera, 2001, p. 117) which have been found to discourage impulse buying online. Consequently, the ambiguity of the sales channel by capturing its entirety would be eliminated, allowing direct comparisons to be made between webshops and their brick-and-mortar counter parts based on smaller theoretical components. This study hoped to find that online and offline IPI differed so that a recommendation could be made as to the optimal brand strategy for companies looking to augment their online presence, but such a relationship was not found. The phenomenon remains of great relevance however. As the retail environment is shifting to online channels, the importance of a brands intangible assets remains to be determined, and merits further research.

Future studies could also further examine the magnitude of the effects identified here, especially in relation to product pricing and promotion as such an analysis exceeds the scope of this research. Additionally, future studies may seek to verify the findings of this study by testing other product categories, to improve the generalizability of the obtained results. In addition, the strength of the effect can be further examined. Establishing the optimal point where marginal gain in IPI is equal to the marginal cost of further developing brand equity would constitute valuable information for brand managers.

References

Aaker, D. A. (1996). *Building strong brands.* New York: The Free Press.

Aaker, J. (1997). Dimensions of Brand Personality. *Journal of Marketing Research, 34(3)*, 347-356.

Aaker, J. (1999). The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research, 36(1)*, pp. 45-57.

Aaker, J. L. (2000). Accessibility or diagnosticity? Disentangling the influence of culture on persuasion processes and attitudes. *Journal of Consumer Research, 26*, 340-357.

Aaker, J. L., Benet-Martinez, V., & Garolera, J. (2001). Consumption symbols as carriers of culture: a study of Japanese and Spanish brand personality constructs. *Journal of Personality and Social Psychology, 81*, 492-508.

Aaker, J., Fournier, S., & Brasel, S. A. (2004). When goods brands do bad. *Journal of Consumer Research, 31(1)*, pp. 1-16.

Abrahams, B. (1997). It's all in the mind. *Marketing, 27(1)*, pp. 31-33.

Adelaar, T., Chang, S., Lancendorfer, K. M., Lee, B., & Morimoto, M. (2003, Dec). Effects of media formats on emotions and impulse buying intent. *Journal of Information Technology, 18*, pp. 247-266.

Ailawadi, K. L., & Keller, K. L. (2004). Understanding retail branding: conceptual insights and research priorities. *Journal of Retailing, 80(4)*, pp. 331-342.

Alba, J. W., & Hutchinson, J. (1987, March). Dimensions of Consumer Expertise. *Journal of Consumer Research, 13(4)*, pp. 411-454.

Ang, S., & Lim, E. (2006). The influence of metaphors and product type on brand personality perceptions and attitudes. *Journal of Advertising, 35(2)*, pp. 39-53.

Applebaum, W. (1951, Oct). Studying Customer Behavior in Retail Stores. *Journal of Marketing, 16(2)*, pp. 172-178.

Austin, J. R., Siguaw, J. A., & Mattila, A. S. (2003). A re-examination of the generalizability of the Aaker brand personality measurement framework. *Journal of Strategic Marketing, 11*, 77-92.

Azoulay, A., & Kapferer, J.-N. (2003). Do brand personality scales really measure brand personality? *The Journal of Brand Management, 11(2)*, 143-155.

Batra, R., Lehmann, D. R., & Singh, D. (1993). The brand personality component of brand goodwill: some antecedents and consequences. In D. A. Aaker, & A. L. Biel, *Brand equity and advertising* (pp. 83-96). Hillsdale, NJ: Lawrence Erlbaum Associates.

Bayley, G., & Nancarrow, C. (1998). Impulse purchasing: a qualitative exploration of the phenomenon. *Qualitative Market Research: An International Journal, 1(2)*, 99-114.

Beatty, S. E., & Ferrell, E. (1998). Impulse Buying: Modeling Its Precursors. *Journal of Retailing, 74(2)*, pp. 161-167.

Bellenger, D. N., Robertson, D. H., & Hirschman, E. C. (1978). Impulse buying varies by product. *Journal of Advertising Research, 18(6)*, pp. 15-18.

Bernthal, M. J., Crockett, D., & Rose, R. L. (2005, June). Credit Cards as Lifestlye Facilitators. *Journal of Consumer Research, 32(1)*, pp. 130-145.

Biel, A. (1993). Converting image into equity. In D. Aaker, A. Biel, & (Eds), *Brand Equity and Advertising: Advertising's Role in Building Strong Brands* (pp. 67-82). NJ: Lawrence Erlbaum.

Black, D. W. (2007). A review of compulsive buying disorder. *World Psychiatry, 6(1)*, 14-18.

Bosnjak, M., Bochmann, V., & Hufschmidt, T. (2007). Dimensions of brand personality attributions: A person-centric approach in the German cultural context. *Social Behavior and Personality, 35(3)*, 303-316.

Burnett, S. E. (2006). *Internal and External Trigger Cues of Impulse Buying Online.* Oregan State University.

Burton, D. (2002). Postmodernism, social relations and remote shopping. *European Journal of Marketing, 36(7/8)*, 792-810.

Caprara, G., Barbaranelli, C., & Guido, G. (2001). Brand personality: How to make the metaphor fit? *Journal of economic psychology, 22(3)*, 377-395.

Carr, S. (1996). The cult of brand personality. *Marketing News, 30(10)*, pp. 4-9.

Carver, C. S. (2005). Impulse and constraint: Perspectives from personality psychology, convergence with theory in other areas, and potential for integration. *Personality and social psychology review, 9(4)*, 312-333.

Carver, C. S., & Scheier, M. F. (2008). Feedback processes in the simultaneous regulation of action and affect. In *Handbook of motivation science* (pp. 308-324).

Centre for Retail Research. (n.d.). *Online Retailing: Britain, Europe, US and Canada 2017*. Retrieved from Centre for Retail Research: http://www.retailresearch.org/onlineretailing.php

Chandon, P., Hutchinson, J. W., Bradlow, E. T., & Young, S. H. (2009). Does In-Store Marketing Work? Effects of the Number and Position of Shelf Facings on Brand Attention and Evaluation at the Point of Purchase. *Journal of Marketing, 73(6)*, 1-17.

Chen-Yu, J. H., & Seock, Y.-K. (2002). Adolescents' Clothing Purchase Motivations, Information Sources, and Store Selection Criteria: A Comparison of Male/Female and Impulse/Nonimpulse Shoppers. *Family and Consumer Sciences Research Journal, 31(1)*, 50-77.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing, 77(4)*, pp. 511-535.

Clover, V. T. (1950, Jul). Relative Importance of Impulse-Buying in Retail Stores. *Journal of Marketing, 15(1)*, pp. 66-70.

Cobb-Walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand Equity, Brand Preference, and Purchase Intent. *Journal of Advertising, 24(3)* , 25-40.

Coley, A., & Burgess, B. (2003). Gender differences in cognitive and affective impulse buying. *Journal of Fashion Marketing and Management, 7(3)*, 282-295.

Cortina, J. M. (1993, February). What Is Coefficient Alpha?: An Examination of Theory and Applications. *Journal of Applied Psychology, 78(1)*, pp. 98-104.

Costa, P. T., & McCrae, R. R. (1992). *The revised neo personality inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual.* Odesa, FL: Psychological Assessment Resources.

creditcard.com. (2016, January 24). *Survey: 5 in 6 Americans admit to impulse buys*. Retrieved from creditcards.com: http://www.creditcards.com/credit-card-news/impulse-buy-survey.php

Dawson, S., & Kim, M. (2009). External and internal trigger cues of impulse buying online. *Direct Marketing: An International Journal, 3(1)*, pp. 20-34.

De Chernatony, L. (2010). *From Brand Vision to Brand Evaluation: The Strategic Process of Growing and Strengthening Brands.* Oxford: Butterworth-Heinemann.

de Groot, A. (2012). *Brand Personality and Marketing Communication Channels - The influence of Marketing Communication Channels on consumers' perceived Brand Personality.* Msc Thesis.

Depue, R. A., & Collins, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Behavioral and Brain Sciences, 22(3)*, 491-517.

DeYoung, C. G. (2010). Impulsivity as a personality trait. In K. D. Vohs, & R. F. Baumeister, *Handbook of self-regulation: Research, theory, and applications, 2* (pp. 485-502). New York: Guilford Press.

Dholakia, U. M. (2000). Temptation and Resistance: An Integrated Model of Consumption Impulse Formation and Enactment. *Psychology & Marketing, 17*, 955-982.

Diamantopoulos, A., Smith, G., & Grime, I. (2005). The impact of brand extensions on brand personality: experimental evidence. *European Journal of Marketing, 39(1/2)*, 129-149.

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of personality and social psychology, 73(6)*, 1246-1256.

Dittmar, H. (2001). Impulse buying in ordinary and "compulsive" consumers. *Conflict and tradeoffs in decision making*, pp. 110-135.

Dittmar, H., & Drury, J. (2000). Self-image–is it in the bag? A qualitative comparison between "ordinary" and "excessive" consumers. *Journal of Economic Psychology, 21(2)*, 109-142.

Dittmar, H., Beattie, J., & Friese, S. (1996, Sept). Objects, decision considerations and self-image in men's and women's impulse purchases. *Acta Psychologica, 93(1)*, pp. 187-206.

Donthu, N., & Garcia, A. (1999). The Internet Shopper. *Journal of Advertising Research, 39(3)*, p. 52.

Faber, R. J., & Vohs, K. D. (2004). To buy or not to buy?: Self-control and self-regulatory failure in purchase behavior. In R. F. Baumeister, & K. D. Vohs, *Handbook of self-regulation: Research, theory, and applications* (pp. 509-524).

Federal Reserve. (2003). *Flow of Funds Accounts of the United States.* Washington, DC: Board of Governors of the Federal Reserve System.

Fisher, R. J. (1993, Sep). Social Desirability Bias and the Validity of Indirect Questioning. *Journal of Consumer Research, 20(2)*, pp. 303-315.

Floh, A., & Madlberger, M. (2013). The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications, 12*, 425-439.

Fournier, S. (1998). Consumers and Their Brands: Developing Relationship Theory in Consumer Research. *Journal of Consumer Research, 24(4)*, pp. 343-353.

Freling, T. H., Crosno, J. L., & Henard, D. H. (2011). Brand personality appeal: conceptualization and empirical validation. *Journal of the Academy of Marketing Science, 39(3)*, 392-406.

Freud, S. ([1896] 1911). Formulations on the Two Principles of Mental Functioning. In J. Strachey, & A. (. Freud, *The Standard Edition of the Complete Psychological Works of Sigmund Freud, 12.* London: Hogarth.

Gardner, B. B., & Levy, S. J. (1955, March-April). The Product and the Brand. *Harvard Business Review, 33(2)*, pp. 33-39.

Geuens, M., Weijters, B., & De Wulf, K. (2009). A new measure of brand personality. *Intern. J. of Research in Marketing, 26*, pp. 97-107.

Goldberg, L. R. (1993). The Structure of Phenotypic Personality Traits. *American Psychologist, 48(1)*, 26-34.

Halliday, J. (1996). Chrysler brings out brand personalities with'97 ads. *Advertising Age, 67(40),* pp. 3-4.

Hausman, A. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing. 17(5),* pp. 403-426.

Hawkins, D. I., Best, R. J., & Coney, K. A. (2001). *Consumer Behavior: Building Marketing Strategy, 8th ed.* New York, NY: McGraw Hill.

Helmers, K. F., Young, S. N., & Pihl, R. O. (1995). Assessment of measures of impulsivity in healthy male volunteers. *Personality and Individual Differences*, 927-935.

Het Centraal Bureau voor de Statistiek. (2016). *Hoogst behaald onderwijsniveau*. Retrieved from Onderwijs in Cijfers: https://www.onderwijsincijfers.nl/kengetallen/sectoroverstijgend/nederlands-onderwijsstelsel/hoogst-behaalde-onderwijsniveau

Hoch, S. J., & Loewenstein, G. F. (1991, March). Time-Inconsistent Preferences and Consumer Self-Control. *Journal of Consumer Research, 17 (4),* pp. 492-507.

Hodge, R., & Jeffrey, S. A. (2007). Factors influencing impulse buying during an online purchase. *Electronic Commerce Research, 7(3),* 367-379.

Hogan, R., & Hogan, J. (2007). *Hogan personality inventory manual, 3.* Tulsa, OK: Hogan Assessment Systems.

Hostler, R. E., Yoon, V. Y., Guo, Z., Guimaraes, T., & Forgionne, G. (2011). Assessing the impact of recommender agents on on-line consumer unplanned purchase behavior. *Information & Management, 48*, 336-343.

Iyer, E. S. (1989). Unplanned Purchasing: Knowledge Of Shopping Environment And Time Pressure. *Journal of Retaling, 65(1),* pp. 40-57.

Janssens, W., Wijnen, K., De Pelsmacker, P., & Van Kenhove, P. (2008). *Marketing Research with SPSS.* Essex: Pearson Education.

Jones, M. A., Reynolds, K. E., Weun, S., & Beatty, S. E. (2003, July). The product-specific nature of impulse buying tendency. *Journal of Business Research, 56(7),* pp. 505-511.

Kacen, J. J., & Lee, J. (2002). The Influence of Culture on Consumer. *Journal of Consumer Psychology, 12(2),* pp. 163-176.

Kalwani, M., & Silk, A. (1982, August). On the Reliability and Predictive Validity of Purchase Intention Measures. *Marketing Science, 1(3),* pp. 243-286.

Kapferer, J.-N. (2008). *The New Strategic Brand Management: Creating and Sustaining Brand Equity Long Term.* London: Kogan.

Keller, K. L. (1993, Jan). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing, 57(1),* pp. 1-22.

Keller, K. L. (1998). *Strategic brand management: Building, measuring, and managing brand equity.* New Jersey: Prentice Hall.

Keller, K. L. (2012). Understanding the richness of brand relationships: Research dialogue on brands as intentional agents. *Journal of Consumer Psychology, 22*, pp. 186-190.

Kervyn, N., Fiske, S. T., & Malone, C. (2012). Brands as intentional agents framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology, 22*, pp. 166-176.

Kim, M., & Hunter, J. (1993). Relationships among attitudes, behavioral intentions, and behavior: a meta-analysis of past research, part 2. *Communication Research, 20(3)*, pp. 331-364.

Kollat, D. T., & Willett, R. P. (1967). Customer Impulse Purchasing Behavior. *Journal of Marketing Research, 4(1)*, 21-31.

Kotler, P. (1973). Atmospherics as a marketing tool. *Journal of Retailing, 49(4)*, pp. 48-64.

Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research, 13(2)*, pp. 205-223.

Koufaris, M., Kambil, A., & LaBarbera, P. A. (2001). Consumer behavior in web-based commerce: an empirical study. *International Journal of Electronic Commerce, 6(2)*, pp. 115-138.

LaRose, R., & Eastin, M. S. (2002). Is Online Buying Out of Control? Electronic Commerce and Consumer Self-Regulation. *Journal of Broadcasting & Electronic Media, 46(4)*, 549-564.

Lejoyeux, M., Ades, J., Tassain, V., & Solomon, J. (1996). Phenomenology and psychopathology of uncontrolled buying. *The American Journal of Psychiatry, 152(12)*, pp. 1524-9.

Li, H., Kuo, C., & Rusell, M. G. (1999). The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior. *Journal of Computer-Mediated Communication, 5(2)*.

Liao, S.-L., Shen, Y.-C., & Chu, C.-H. (2009). The effects of sales promotion strategy, product appeal andconsumer traits on reminder impulse buying behaviour. *International Journal of Consumer Studies, 33(3)*, pp. 274-284.

Luo, X. (2005). How Does Shopping With Others Influence Impulsive Purchasing? *Journal of Consumer Psychology, 15(4)*, pp. 288-294.

Madhavaram, S. R., & Lavarie, D. A. (2004). Exploring Impulse Purchasing on the Internet. *NA-Advances in Consumer Research, 31*, pp. 59-66.

Mangalindan, J. (2012, Jul 30). *Amazon's recommendation secret*. Retrieved from Fortune: http://fortune.com/2012/07/30/amazons-recommendation-secret/

McCrae, R. R., & Costa Jr., P. T. (1997). Personality trait structure as a human universal. *American Psychologist, 52(5)*, 509-516.

McGoldrick, P. J., Betts, E. J., & Keeling, K. A. (1999). Antecedents of Spontaneous Buying Behavior During Temporary Markdowns. *NA-Advances in Consumer Research, 26*, pp. 26-33.

Mischel, W., & Grusec, J. (1967). Waiting for rewards and punishments: Effects of time and probability on choice. *Journal of personality and social psychology, 5(1)*, pp. 24-31.

Moe, W. W., & Fader, P. S. (2004). Dynamic Conversion Behavior at E-Commerce Sites. *Management Science, 50(3)*, 326-335.

Mohan, G., Sivakumaran, B., & Sharma, P. (2013). Impact of store environment on impulse buying behavior. *European Journal of Marketing, 47(10)*, pp. 1711-1732.

Muniz, A. M., & O'Guinn, T. C. (2001). Brand Community. *Journal of Consumer Research, 27(4)*, pp. 412-432.

Murray, H. (1938). Explorations in Personality.

Nesbitt, S. (1959). Today's Housewives plan menus as they shop. *Nesbitt associates release 2.3*.

Nichols, J., Li, F., Roslow, S., Kranendonk, C., & Mandakovic, T. (2001). Inter-american perspectives from mall shoppers: chile-united states. *Journal of Global Marketing, 15(1)*, pp. 87-103.

Nunnally, J. (1978). *Psychometric theory.* New York: McGraw-Hill.

Okazaki, S. (2006). Excitement or sophistication? A preliminary exploration of online brand personality. *International Marketing Review, 23(3)*, pp. 279-303.

Olsen, S. O., Tudoran, A. A., Honkanen, P., & Verplanken, B. (2016). Differences and Similarities between Impulse Buying and Variety Seeking: A Personality-based Perspective. *Psychology & Marketing, 33(1)*, 36-47.

Ouwersloot, H., & Tudorica, A. (2001). *Brand personality creation through advertising.* Maastricht Accounting and Auditing Research and Education Center (MARC).

Parboteeah, D. V., Valacich, J. S., & Wells, J. D. (2009, March). The Influence of Website Characteristics on a Consumer's Urge to Buy Impulsively. *Information Systems Research, 20(1)*, pp. 60-78.

Park, J., & Lennon, S. J. (2004). Television apparel shopping: impulse buying and parasocial interaction. *Clothing and Textiles Research Journal, 22(3)*, 135-144.

Parker, B. T. (2009). A comparison of brand personality and brand user-imagery congruence. *Journal of Consumer Marketing, 26(3)*, 175-184.

Peck, J., & Childers, T. L. (2006). If I touch it I have to have it: Individual and environmental influences on impulse purchasing. *Journal of Business Research Vol. 59 Iss. 6*, 765-769.

Piron, F. (1991). Defining Impulse Purchasing. *Advances in Consumer Research, 18*, pp. 509-514.

Plummer, J. (1984/1985). How personality makes a difference. *Journal of Advertising Research, 24(6)*, pp. 27-31.

Pollay, R. W. (1968, Aug). Customer Impulse Purchasing Behavior: A Reexamination. *Journal of Marketing Research, 5(3)*, pp. 323-325.

POPAI/Dupont. (1978). POPAI/Dupont Consumer Buying Habits Survey. In *Chain Store Age/Supermarkets* (p. 41). New York: Point-of-Purchase Advertising Institute.

Quelch, J., & Cannon-Bonventre, K. (1983, Nov). Better Marketing at the Point of Purchase. *Hardvard Business Review*.

Rook, D. W. (1987, September). The Buying Impulse. *Journal of Consumer Research, 14(2)*, 188-199.

Rook, D. W., & Fisher, R. J. (1995, Dec). Normative Influences on Impulsive Buying Behavior. *Journal of Consumer Research Vol. 22(3)*, pp. 305-313.

Rook, D. W., & Gardner, M. P. (1993). In the mood: Impulse buying's affective antecedents. *Research in Consumer Behavior, 6(7)*, pp. 1-28.

Rook, D. W., & Hoch, S. J. (1985). Consuming Impulses. *NA - Advances in Consumer Research, 12*, pp. 23-27.

Roth, J. (2014, Dec 15). *Once-a-Month Shopping: Save More by Shopping Less*. Retrieved from Get Rich Slowly: http://www.getrichslowly.org/blog/2008/10/09/once-a-month-shopping-save-more-by-shopping-less/

Rozin, P., Levine, E., & Stoess, C. (1991, December). Chocolate Craving and Liking. *Appetite*, pp. 199-212.

Russel, J. A., Weiss, A., & Mendelsohn, G. A. (1989). Affect grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology, 57(3)*, 493-502.

Sharma, P., Sivakumaran, B., & Marshall, R. (2010). Impulse buying and variety seeking: A trait-correlates perspective. *Journal of Business Research, 63(3)*, 276-283.

Sheppard, B., Hartwick, J., & Warshaw, P. (1988). The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future researchq. *Journal of Consumer Research, 15*, pp. 325-343.

Shukla, P., & Banerjee, M. (2014). The direct and interactive effects of store-level promotions on impulse purchase: Moderating impact of category familiarity and normative influences. *Journal of Consumer Behavior, 13*, pp. 242-250.

Sirhindi, A. (2010). *A critical review of in-store and online impulse purchase behavior.* Stillwater, Oklahoma : Msc Thesis.

Smit, E. G., Van den Berge, E., & Franzen, G. (2002). Brands are just like real people! The development of SWOCC's brand personality scale. In F. Hansen, & L. B. Christensen, *Branding and Advertising* (pp. 22-43). Copenhagen: Copenhagen Business School.

Steinberg, L., Albert, D., Cauffman, E., Banich, M., Graham, S., & Woolard, J. (2008). Age Differences in Sensation Seeking and Impulsivity as Indexed by Behavior and Self-Report: Evidence for a Dual Systems Model. *Developmental Psychology, 44(6)*, 1764-1778.

Stern, H. (1962, April). The Significance of Impulse Buying Today. *Journal of Marketing, 26(2)*, pp. 59-62.

Store Buying Decisions: 60 Percent In-Store. (1982). *POPAI News, 6(2)*, p. 1.

Sutton, S. (1998). Predicting and explaining intentions and behavior: how well are we doing? *Journal of Applied Social Psychology, 28(15)*, pp. 1317-1338.

Swaminathan, V., Stilley, K. M., & Ahluwalia, R. (2009). hen brand personality matters: the moderating role of attachment styles. *Journal of Consumer Research, 35*, 985-1002.

Tauber, E. M. (1972). Why Do People Shop? *Journal of Marketing, 36(4)*, 46-49.

TSYS. (2016). *U.S. Consumer Payment Study.*

Underhill, P. (1999). *Why We Buy: The Science of Shopping.* Simon & Schuster.

User Interface Engineering. (2002, Feb 4). *What Causes Customers to Buy on Impulse?* Retrieved from E-Commerce White Paper: https://www.uie.com/publications/whitepapers/ImpulseBuying.pdf

van Rekom, J., Jacobs, G., & Verlegh, P. W. (2006). Measuring and managing the essence of a brand personality. *Marketing Letters, 17(3)*, pp. 181-192.

Verplanken, B., & Herabadi, A. (2001, November). Individual Differences in Impulse Buying Tendency: Feeling and no Thinking. *European Journal of Personality, 15(S1)*, pp. 71-83.

Verplanken, B., & Sato, A. (2011). The psychology of impulse buying: An integrative self-regulation approach. *Journal of Consumer Policy, 34(2)* , 197-210.

Wansink, B. (1994). The Dark Side of Consumer Behavior: Empirical Examinations of Impulsive and Compulsive Consumption. *Advances in Consumer Research, 21*, 508.

Weinberg, B. D. (2001). Research in exploring the online consumer experience. *NA-Advances in Consumer Research, 28* , 227-232.

Weinberg, P., & Gottwald, W. (1982). Impulsive consumer buying as a result of emotions. *Journal of Business Research, 10(1),* pp. 43-57.

Wells, J. D., Parboteeah, V., & Valacich, J. S. (2011). Online impulse buying: understanding the interplay between consumer impulsiveness and website quality. *Journal of the Association for Information Systems, 12(1)*, 32-56.

Weun, S., Jones, M. A., & Beatty, S. E. (1998). Development and Validation of the Impulse Buying Tendency Scale. *Psychological Reports, 82(3)*, 1123-1133.

Whiteside, S. P., & Lynam, D. R. (2001). The five factor model and impulsivity: Using a structural model of personality to understand impulsivity. *Personality and individual differences, 30(4)* , 669-689.

Willet, R. P., & Kollat, D. T. (1968, Aug). Customer Impulse Purchasing Behavior: Some Research Notes and a Reply. *Journal of Marketing Research, 5(3)*, pp. 326-330.

Wolfinbarger, M., & Gilly, M. (2000). Consumer Motivations for Online Shopping. *AMICS 2000 Proceedings*, (p. 112).

Wolfinbarger, M., & Gilly, M. C. (2001). Shopping online for freedom, control, and fun. *California Management Review, 43(2)*, 34-55.

Wood, M. (1998). Socio-economic status, delay of gratification, and impulse buying. *Journal of Economic Psychology, 19(3)*, 295-320.

Xiao, S. H., & Nicholson, M. (2013). A Multidisciplinary Cognitive Behavioral Framework of Impulse Buying: A Systematic Review of the Literature. *International Journal of Management Reviews, 15*, 333-356.

Youn, S., & Faber, R. J. (2000). Impulse Buying: Its Relation to Personality Traits and Cues. *NA-Advances In Consumer Research, 27*, pp. 179-185.

Zaroban, S. (2017, February 17). *US e-commerce sales grow 15.6% in 2016*. Retrieved from Internet Retailer: https://www.internetretailer.com/2017/02/17/us-e-commerce-sales-grow-156-2016

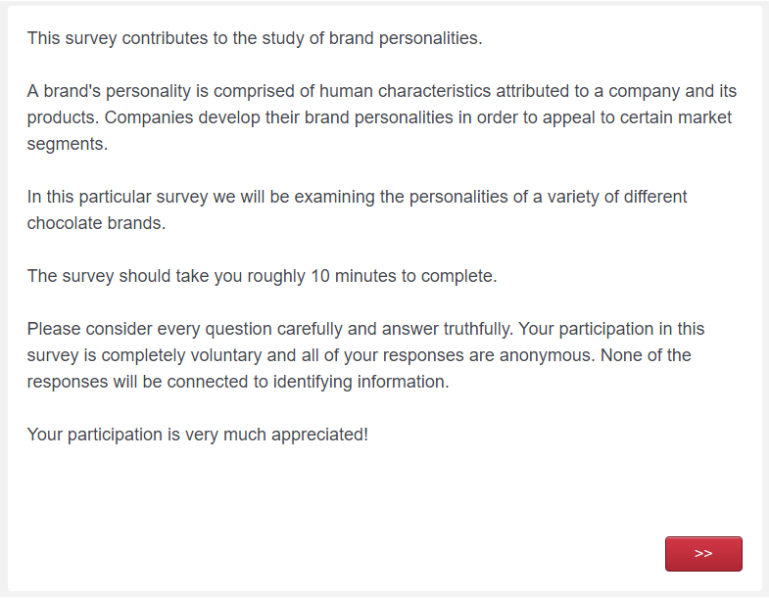
Zhou, L., & Wong, A. (2004). Consumer Impulse buying and in-store stimuli in Chinese supermarkets. *Journal of International Consumer Marketing, 16(2)*, 37-53.

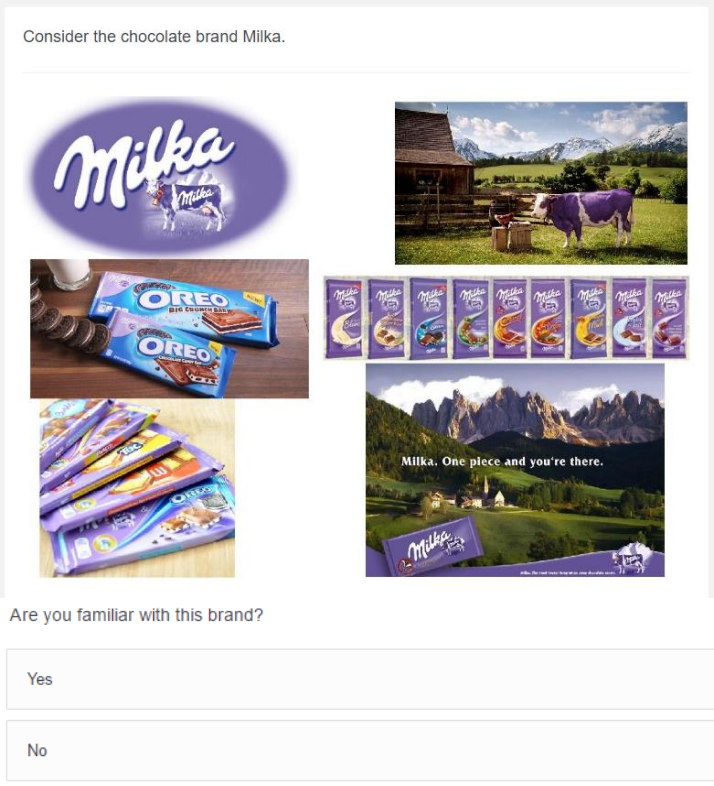
Appendix

A. Pre-test

A.1 Survey

Snapshot of the survey used for the pre-test. In this example, the chocolate brand Milka is portrayed. The actual survey contained 9 other chocolate brands. Each respondent responded to all 10 brands.





Now imagine that the Milka brand is a person, what kind of person would Milka be?

Keeping that person in mind, evaluate Milka in terms of the following attributes from 1-not characteristic of the brand to 7-very characteristic of the brand.

(Facets which may help you define each attribute are listed at the bottom of the page)

	1	2	3	4	5	6	7
Down-to-earth	○	○	○	○	○	○	○
Honest	○	○	○	○	○	○	○
Wholesome	○	○	○	○	○	○	○
Cheerful	○	○	○	○	○	○	○
Daring	○	○	○	○	○	○	○
Spirited	○	○	○	○	○	○	○
Imaginative	○	○	○	○	○	○	○
Up-to-date	○	○	○	○	○	○	○
Reliable	○	○	○	○	○	○	○
Intelligent	○	○	○	○	○	○	○
Successful	○	○	○	○	○	○	○
Upper class	○	○	○	○	○	○	○
Charming	○	○	○	○	○	○	○
Outdoorsy	○	○	○	○	○	○	○
Tough	○	○	○	○	○	○	○
Down to earth	○	○	○	○	○	○	○
Stable	○	○	○	○	○	○	○
Responsible	○	○	○	○	○	○	○
Active	○	○	○	○	○	○	○
Dynamic	○	○	○	○	○	○	○
Innovative	○	○	○	○	○	○	○
Aggressive	○	○	○	○	○	○	○
Bold	○	○	○	○	○	○	○
Ordinary	○	○	○	○	○	○	○
Simple	○	○	○	○	○	○	○
Romantic	○	○	○	○	○	○	○
Sentimental	○	○	○	○	○	○	○

What is your gender?

Male

Female

What is your age?

What is the highest degree or level of school you have completed?
(If currently enrolled, highest degree received)

Less than high school

High school graduate

Bachelor's Degree (HBO or university)

Master's Degree

Doctorate Degree

<< >>

You're done!

Thank you for participating in this survey. Your input has contributed to the study of brand personalities.

The data derived from this survey will be used to form the basis of another survey, where we will test the influence of different brand personalities on impulse buying behavior.

If you would like to be informed about the results of the survey or if you have any questions, comments, or concerns in regards to the survey or the study in general, please write to the following e-mail address: 323108rv@eur.nl

Thank you for your time!

<< >>

A.2 ANOVA results – testing sig. of difference in brand personalities

A.2.1 Aaker's BPS

The following is an example of the results obtained by testing the significance of the difference in brand personalities in terms of Aaker's BPS (1997) along the Sincerity dimension using a repeated measures ANOVA.

General Linear Model

Within-Subjects Factors

Measure: Sincerity

Brand	Dependent Variable
1	Sincerity_Bounty
2	Sincerity_Cote
3	Sincerity_Ferrero
4	Sincerity_Lindt
5	Sincerity_Mars
6	Sincerity_Merci
7	Sincerity_Milka
8	Sincerity_MMS
9	Sincerity_Tony

Descriptive Statistics

	Mean	Std. Deviation	N
Sincerity_Bounty	5.0357	.86236	63
Sincerity_Cote	4.8611	.95332	63
Sincerity_Ferrero	3.1548	.62609	63
Sincerity_Lindt	4.1270	1.14729	63
Sincerity_Mars	4.0000	.69561	63
Sincerity_Merci	5.8095	.72361	63
Sincerity_Milka	4.8651	1.00284	63
Sincerity_MMS	5.8690	.77493	63
Sincerity_Tony	5.7500	.93649	63

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Brand	Pillai's Trace	.918	77.102[b]	8.000	55.000	.000	.918
	Wilks' Lambda	.082	77.102[b]	8.000	55.000	.000	.918
	Hotelling's Trace	11.215	77.102[b]	8.000	55.000	.000	.918

	Roy's Largest Root	11.215	77.102[b]	8.000	55.000	.000	.918

a. Design: Intercept

Within Subjects Design: Brand

b. Exact statistic

Mauchly's Test of Sphericity[a]

Measure: Sincerity

					Epsilon[b]		
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Brand	.213	91.428	35	.000	.734	.819	.125

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: Brand

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: Sincerity

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Sphericity Assumed	435.932	8	54.492	70.205	.000	.531
	Greenhouse-Geisser	435.932	5.872	74.243	70.205	.000	.531
	Huynh-Feldt	435.932	6.555	66.505	70.205	.000	.531
	Lower-bound	435.932	1.000	435.932	70.205	.000	.531
Error(Brand)	Sphericity Assumed	384.985	496	.776			
	Greenhouse-Geisser	384.985	364.044	1.058			
	Huynh-Feldt	384.985	406.405	.947			
	Lower-bound	384.985	62.000	6.209			

Tests of Within-Subjects Contrasts

Measure: Sincerity

Source	Brand	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Linear	126.684	1	126.684	221.408	.000	.781
	Quadratic	93.183	1	93.183	93.064	.000	.600
	Cubic	75.447	1	75.447	58.664	.000	.486
	Order 4	.040	1	.040	.087	.768	.001
	Order 5	25.465	1	25.465	33.203	.000	.349
	Order 6	34.434	1	34.434	60.335	.000	.493
	Order 7	1.795	1	1.795	2.558	.115	.040

	Order 8	78.884	1	78.884	92.058	.000	.598
Error(Brand)	Linear	35.475	62	.572			
	Quadratic	62.079	62	1.001			
	Cubic	79.738	62	1.286			
	Order 4	28.129	62	.454			
	Order 5	47.552	62	.767			
	Order 6	35.384	62	.571			
	Order 7	43.501	62	.702			
	Order 8	53.128	62	.857			

Tests of Between-Subjects Effects

Measure: Sincerity

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	13228.839	1	13228.839	20604.064	.000	.997
Error	39.807	62	.642			

Estimated Marginal Means
Brand

Estimates

Measure: Sincerity

Brand	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	5.036	.109	4.819	5.253
2	4.861	.120	4.621	5.101
3	3.155	.079	2.997	3.312
4	4.127	.145	3.838	4.416
5	4.000	.088	3.825	4.175
6	5.810	.091	5.627	5.992
7	4.865	.126	4.613	5.118
8	5.869	.098	5.674	6.064
9	5.750	.118	5.514	5.986

Pairwise Comparisons

Measure: Sincerity

(I) Brand	(J) Brand	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.175	.173	1.000	-.406	.755

	3	1.881*	.147	.000	1.389	2.373
	4	.909*	.208	.002	.211	1.607
	5	1.036*	.132	.000	.595	1.476
	6	-.774*	.152	.000	-1.284	-.264
	7	.171	.139	1.000	-.295	.636
	8	-.833*	.128	.000	-1.261	-.406
	9	-.714*	.158	.001	-1.242	-.186
2	1	-.175	.173	1.000	-.755	.406
	3	1.706*	.145	.000	1.220	2.193
	4	.734*	.160	.001	.198	1.270
	5	.861*	.174	.000	.280	1.442
	6	-.948*	.142	.000	-1.423	-.473
	7	-.004	.181	1.000	-.609	.601
	8	-1.008*	.154	.000	-1.523	-.493
	9	-.889*	.160	.000	-1.425	-.353
3	1	-1.881*	.147	.000	-2.373	-1.389
	2	-1.706*	.145	.000	-2.193	-1.220
	4	-.972*	.157	.000	-1.499	-.446
	5	-.845*	.117	.000	-1.238	-.453
	6	-2.655*	.140	.000	-3.125	-2.185
	7	-1.710*	.170	.000	-2.279	-1.142
	8	-2.714*	.137	.000	-3.173	-2.256
	9	-2.595*	.136	.000	-3.050	-2.141
4	1	-.909*	.208	.002	-1.607	-.211
	2	-.734*	.160	.001	-1.270	-.198
	3	.972*	.157	.000	.446	1.499
	5	.127	.164	1.000	-.422	.676
	6	-1.683*	.168	.000	-2.245	-1.120
	7	-.738*	.207	.025	-1.431	-.046
	8	-1.742*	.177	.000	-2.335	-1.149
	9	-1.623*	.188	.000	-2.253	-.993
5	1	-1.036*	.132	.000	-1.476	-.595
	2	-.861*	.174	.000	-1.442	-.280
	3	.845*	.117	.000	.453	1.238
	4	-.127	.164	1.000	-.676	.422

	6	-1.810*	.131	.000	-2.249	-1.370
	7	-.865*	.137	.000	-1.323	-.407
	8	-1.869*	.126	.000	-2.290	-1.448
	9	-1.750*	.156	.000	-2.273	-1.227
6	1	.774*	.152	.000	.264	1.284
	2	.948*	.142	.000	.473	1.423
	3	2.655*	.140	.000	2.185	3.125
	4	1.683*	.168	.000	1.120	2.245
	5	1.810*	.131	.000	1.370	2.249
	7	.944*	.144	.000	.462	1.427
	8	-.060	.134	1.000	-.507	.388
	9	.060	.166	1.000	-.497	.616
7	1	-.171	.139	1.000	-.636	.295
	2	.004	.181	1.000	-.601	.609
	3	1.710*	.170	.000	1.142	2.279
	4	.738*	.207	.025	.046	1.431
	5	.865*	.137	.000	.407	1.323
	6	-.944*	.144	.000	-1.427	-.462
	8	-1.004*	.176	.000	-1.594	-.414
	9	-.885*	.165	.000	-1.438	-.332
8	1	.833*	.128	.000	.406	1.261
	2	1.008*	.154	.000	.493	1.523
	3	2.714*	.137	.000	2.256	3.173
	4	1.742*	.177	.000	1.149	2.335
	5	1.869*	.126	.000	1.448	2.290
	6	.060	.134	1.000	-.388	.507
	7	1.004*	.176	.000	.414	1.594
	9	.119	.149	1.000	-.380	.618
9	1	.714*	.158	.001	.186	1.242
	2	.889*	.160	.000	.353	1.425
	3	2.595*	.136	.000	2.141	3.050
	4	1.623*	.188	.000	.993	2.253
	5	1.750*	.156	.000	1.227	2.273
	6	-.060	.166	1.000	-.616	.497
	7	.885*	.165	.000	.332	1.438

8	-.119	.149	1.000	-.618	.380

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

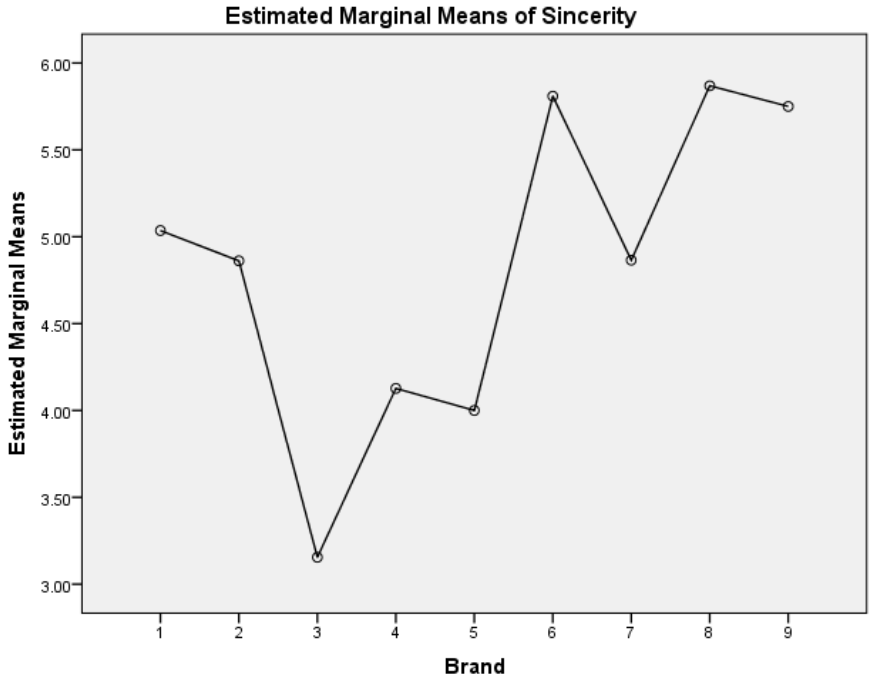
b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.918	77.102[a]	8.000	55.000	.000	.918
Wilks' lambda	.082	77.102[a]	8.000	55.000	.000	.918
Hotelling's trace	11.215	77.102[a]	8.000	55.000	.000	.918
Roy's largest root	11.215	77.102[a]	8.000	55.000	.000	.918

Each F tests the multivariate effect of Brand. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic



A.2.2 BPS of Geuens et al.

The following is an example of the results obtained by testing the significance of the difference in brand personalities in terms of the BPS of Geuens et al. (2009) along the Responsibility dimension using a repeated measures ANOVA.

General Linear Model

Within-Subjects Factors

Measure: Responsibility

Brand	Dependent Variable
1	Responsibility_Bounty
2	Responsibility_Cote
3	Responsibility_Ferrero
4	Responsibility_Lindt
5	Responsibility_Mars
6	Responsibility_Merci
7	Responsibility_Milka
8	Responsibility_MMS
9	Responsibility_Tony

Descriptive Statistics

	Mean	Std. Deviation	N
Responsibility_Bounty	5.021164021164022	.747452101947777	63
Responsibility_Cote	5.883597883597883	.783244630435830	63
Responsibility_Ferrero	3.931216931216931	.790079008250822	63
Responsibility_Lindt	3.269841269841271	.718064759954120	63
Responsibility_Mars	3.931216931216932	.669774289694098	63
Responsibility_Merci	4.883597883597883	.711298298455809	63
Responsibility_Milka	4.380952380952381	.837852569252717	63
Responsibility_MMS	5.079365079365078	1.184902466706336	63
Responsibility_Tony	5.957671957671958	.712137635935889	63

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Brand	Pillai's Trace	.917	75.600[b]	8.000	55.000	.000	.917
	Wilks' Lambda	.083	75.600[b]	8.000	55.000	.000	.917
	Hotelling's Trace	10.996	75.600[b]	8.000	55.000	.000	.917
	Roy's Largest Root	10.996	75.600[b]	8.000	55.000	.000	.917

a. Design: Intercept

Within Subjects Design: Brand

b. Exact statistic

Mauchly's Test of Sphericity[a]

Measure: Responsibility

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Brand	.268	77.953	35	.000	.740	.826	.125

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: Brand

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: Responsibility

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Sphericity Assumed	415.324	8	51.916	83.395	.000	.574
	Greenhouse-Geisser	415.324	5.917	70.193	83.395	.000	.574
	Huynh-Feldt	415.324	6.611	62.823	83.395	.000	.574
	Lower-bound	415.324	1.000	415.324	83.395	.000	.574
Error(Brand)	Sphericity Assumed	308.774	496	.623			
	Greenhouse-Geisser	308.774	366.849	.842			
	Huynh-Feldt	308.774	409.883	.753			
	Lower-bound	308.774	62.000	4.980			

Tests of Within-Subjects Contrasts

Measure: Responsibility

Source	Brand	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Linear	15.536	1	15.536	26.976	.000	.303
	Quadratic	229.177	1	229.177	478.858	.000	.885
	Cubic	.169	1	.169	.302	.584	.005
	Order 4	17.839	1	17.839	19.703	.000	.241
	Order 5	112.552	1	112.552	134.913	.000	.685
	Order 6	28.748	1	28.748	47.056	.000	.431

	Order 7	8.148	1	8.148	13.368	.001	.177
	Order 8	3.156	1	3.156	7.760	.007	.111
Error(Brand)	Linear	35.707	62	.576			
	Quadratic	29.673	62	.479			
	Cubic	34.651	62	.559			
	Order 4	56.135	62	.905			
	Order 5	51.724	62	.834			
	Order 6	37.877	62	.611			
	Order 7	37.792	62	.610			
	Order 8	25.217	62	.407			

Tests of Between-Subjects Effects

Measure: Responsibility

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	12547.914	1	12547.914	13950.818	.000	.996
Error	55.765	62	.899			

Estimated Marginal Means
Brand

Estimates

Measure: Responsibility

Brand	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	5.021	.094	4.833	5.209
2	5.884	.099	5.686	6.081
3	3.931	.100	3.732	4.130
4	3.270	.090	3.089	3.451
5	3.931	.084	3.763	4.100
6	4.884	.090	4.704	5.063
7	4.381	.106	4.170	4.592
8	5.079	.149	4.781	5.378
9	5.958	.090	5.778	6.137

Pairwise Comparisons

Measure: Responsibility

(I) Brand	(J) Brand	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound

1	2	-.862*	.158	.000	-1.392	-.332
	3	1.090*	.124	.000	.676	1.503
	4	1.751*	.121	.000	1.347	2.155
	5	1.090*	.127	.000	.664	1.516
	6	.138	.120	1.000	-.263	.538
	7	.640*	.143	.001	.162	1.118
	8	-.058	.195	1.000	-.710	.594
	9	-.937*	.140	.000	-1.406	-.467
2	1	.862*	.158	.000	.332	1.392
	3	1.952*	.150	.000	1.451	2.454
	4	2.614*	.152	.000	2.105	3.122
	5	1.952*	.135	.000	1.500	2.405
	6	1.000*	.131	.000	.561	1.439
	7	1.503*	.142	.000	1.028	1.978
	8	.804*	.164	.000	.256	1.353
	9	-.074	.121	1.000	-.480	.332
3	1	-1.090*	.124	.000	-1.503	-.676
	2	-1.952*	.150	.000	-2.454	-1.451
	4	.661*	.107	.000	.304	1.019
	5	.000	.098	1.000	-.327	.327
	6	-.952*	.116	.000	-1.340	-.565
	7	-.450	.145	.101	-.934	.034
	8	-1.148*	.162	.000	-1.690	-.607
	9	-2.026*	.133	.000	-2.471	-1.582
4	1	-1.751*	.121	.000	-2.155	-1.347
	2	-2.614*	.152	.000	-3.122	-2.105
	3	-.661*	.107	.000	-1.019	-.304
	5	-.661*	.116	.000	-1.048	-.275
	6	-1.614*	.120	.000	-2.016	-1.211
	7	-1.111*	.127	.000	-1.537	-.686
	8	-1.810*	.156	.000	-2.331	-1.288
	9	-2.688*	.130	.000	-3.121	-2.254
5	1	-1.090*	.127	.000	-1.516	-.664
	2	-1.952*	.135	.000	-2.405	-1.500
	3	.000	.098	1.000	-.327	.327

	4	.661*	.116	.000	.275	1.048
	6	-.952*	.109	.000	-1.318	-.587
	7	-.450	.140	.076	-.919	.019
	8	-1.148*	.163	.000	-1.694	-.603
	9	-2.026*	.133	.000	-2.471	-1.582
6	1	-.138	.120	1.000	-.538	.263
	2	-1.000*	.131	.000	-1.439	-.561
	3	.952*	.116	.000	.565	1.340
	4	1.614*	.120	.000	1.211	2.016
	5	.952*	.109	.000	.587	1.318
	7	.503*	.149	.047	.003	1.003
	8	-.196	.163	1.000	-.742	.350
	9	-1.074*	.129	.000	-1.504	-.644
7	1	-.640*	.143	.001	-1.118	-.162
	2	-1.503*	.142	.000	-1.978	-1.028
	3	.450	.145	.101	-.034	.934
	4	1.111*	.127	.000	.686	1.537
	5	.450	.140	.076	-.019	.919
	6	-.503*	.149	.047	-1.003	-.003
	8	-.698*	.161	.002	-1.238	-.159
	9	-1.577*	.139	.000	-2.043	-1.110
8	1	.058	.195	1.000	-.594	.710
	2	-.804*	.164	.000	-1.353	-.256
	3	1.148*	.162	.000	.607	1.690
	4	1.810*	.156	.000	1.288	2.331
	5	1.148*	.163	.000	.603	1.694
	6	.196	.163	1.000	-.350	.742
	7	.698*	.161	.002	.159	1.238
	9	-.878*	.187	.001	-1.503	-.253
9	1	.937*	.140	.000	.467	1.406
	2	.074	.121	1.000	-.332	.480
	3	2.026*	.133	.000	1.582	2.471
	4	2.688*	.130	.000	2.254	3.121
	5	2.026*	.133	.000	1.582	2.471
	6	1.074*	.129	.000	.644	1.504

7	1.577*	.139	.000	1.110	2.043
8	.878*	.187	.001	.253	1.503

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

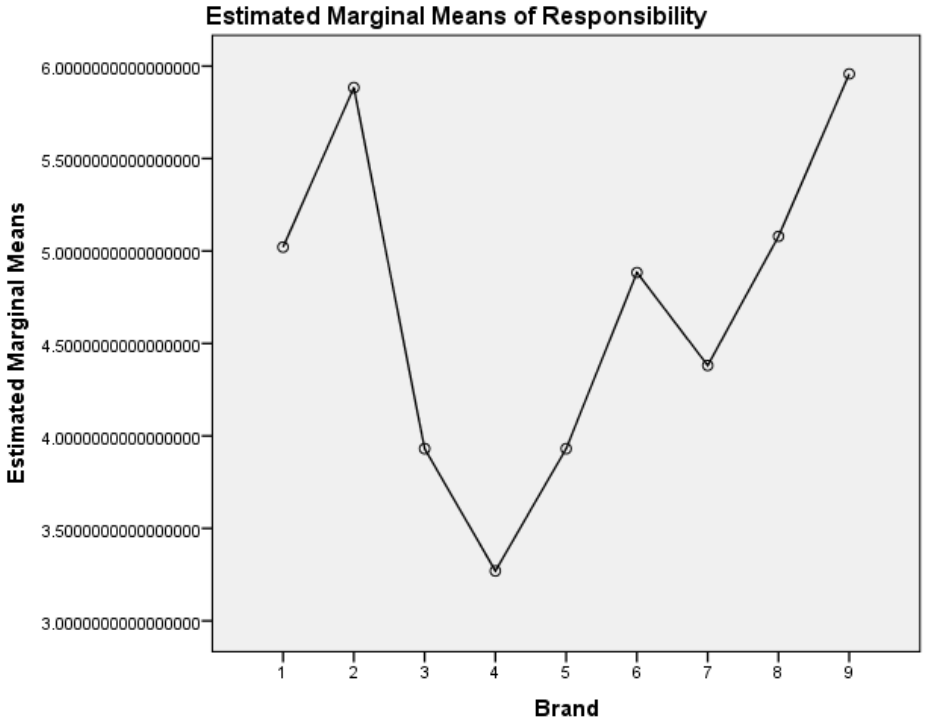
Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.917	75.600[a]	8.000	55.000	.000	.917
Wilks' lambda	.083	75.600[a]	8.000	55.000	.000	.917
Hotelling's trace	10.996	75.600[a]	8.000	55.000	.000	.917
Roy's largest root	10.996	75.600[a]	8.000	55.000	.000	.917

Each F tests the multivariate effect of Brand. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

Profile Plots



B. Rook and Fisher Buying Scenario

The original hypothetical buying scenario used to measure impulsive purchase decision as designed by Rook and Fisher (1995):

"Mary is a 21-year-old college student with a part-time job. It is two days before Mary gets her next paycheck and she has only $25 left for necessities. In addition to food, Mary needs to buy a pair of warm socks for an outdoor party this weekend. After work, she goes with her friend Susan to the mall to purchase the socks. As they are walking through Bullock's, Mary sees a great looking sweater on sale for $75."

Respondents were then asked to select one of the following decision alternatives:

1. Buying the socks only
2. Wanting the sweater but not buying it
3. Deciding not to buy the socks
4. Buying both the socks and sweater with a credit card
5. Buying these plus matching slacks and a shirt, also with a credit card.

These choice alternatives were designed to represent varying levels of buying impulsiveness (from low to high impulsiveness).

C. Main Study

C.1 Survey

The following is an illustration of the survey used to gather data for the main study. 2 random brands (out of a possible 8), 1 online, 1 offline, are shown to the respondent.

This survey contributes to the study of brand personalities in relation to impulse buying.

A brand's personality is comprised of human characteristics attributed to a company and its products. Companies develop their brand personalities in order to appeal to certain market segments. Red Bull, Nespresso, and Harley Davidson are examples of brands with strong and distinct personalities.

In this survey we will begin by asking you to asses the brand personality of a chocolate brand. You will then be asked to imagine a hypothetical buying scenario keeping that particular brand in mind.

Please consider every question carefully and answer truthfully, there is no right or wrong answer. Your participation in this survey is completely voluntary.

The survey should take you roughly 10 minutes to complete.

Your participation is very much appreciated!

>>

Consider the chocolate brand **Mars.**

	Not familiar at all						Extremely familiar
To what extent are you familiar with this brand?	○	○	○	○	○	○	○

Now imagine that the **Mars** brand is a person, what kind of person would **Mars** be?

Keeping that person in mind, evaluate **Mars** in terms of the following attributes from 1-not characteristic of the brand to 7-very characteristic of the brand.

	1	2	3	4	5	6	7
Down to earth	○	○	○	○	○	○	○
Stable	○	○	○	○	○	○	○
Responsible	○	○	○	○	○	○	○
Active	○	○	○	○	○	○	○
Dynamic	○	○	○	○	○	○	○
Innovative	○	○	○	○	○	○	○
Aggressive	○	○	○	○	○	○	○
Bold	○	○	○	○	○	○	○
Ordinary	○	○	○	○	○	○	○
Simple	○	○	○	○	○	○	○
Romantic	○	○	○	○	○	○	○
Sentimental	○	○	○	○	○	○	○

Imagine that you find yourself in the following scenario:

You and a friend are hosting a dinner party tomorrow night at your home. Together you are shopping at the local supermarket to purchase the items that you need for the event. You came prepared and brought a shopping list comprised of items that you need for the party. If you purchase only the items on your list, the €50 on your debit card will be sufficient. If you spend more than €50 you will need to use a credit card to fulfill the payment as you only expect to receive your paycheck in two days. While you are placing your items on the conveyor belt at the checkout counter, you see a special offer for a **Mars** chocolate bar:

What would you do in this situation?

I ignore the opportunity and I do not buy the chocolate.

I want the chocolate, but I choose not to buy it.

I buy the chocolate instead of one of the items that was on my shopping list.

I buy the chocolate in addition to all my original groceries and pay with a credit card.

I buy several chocolates and a pack of gum in addition to all my original groceries and I pay with a credit card.

>>

Consider the chocolate brand **Merci.**

	Not familiar at all						Extremely familiar
To what extent are you familiar with this brand?	○	○	○	○	○	○	○

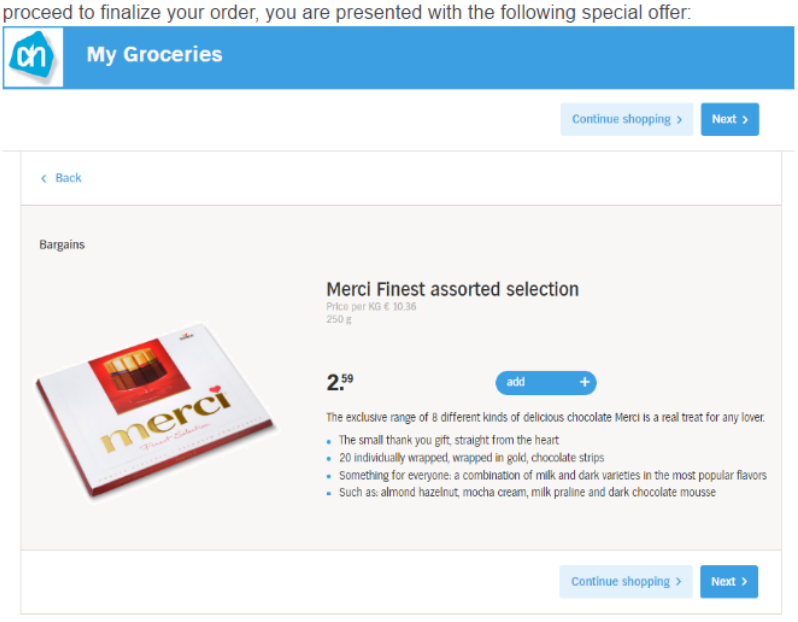
Now imagine that the **Merci** brand is a person, what kind of person would **Merci** be?

Keeping that person in mind, evaluate **Merci** in terms of the following attributes from 1-not characteristic of the brand to 7-very characteristic of the brand.

	1	2	3	4	5	6	7
Down to earth	○	○	○	○	○	○	○
Stable	○	○	○	○	○	○	○
Responsible	○	○	○	○	○	○	○
Active	○	○	○	○	○	○	○
Dynamic	○	○	○	○	○	○	○
Innovative	○	○	○	○	○	○	○
Aggressive	○	○	○	○	○	○	○
Bold	○	○	○	○	○	○	○
Ordinary	○	○	○	○	○	○	○
Simple	○	○	○	○	○	○	○
Romantic	○	○	○	○	○	○	○
Sentimental	○	○	○	○	○	○	○

Imagine that you find yourself in the following scenario:

You and a friend are hosting a dinner party tomorrow night at your home. Together you are shopping online to have the groceries for the dinner delivered straight to your doorstep. You have promised to pay for the expenses but you only have €50 left on your debit card for necessities and you will receive your paycheck in two days. If you spend more than €50 you will need to use a credit card to fulfill the payment. You have filled your online shopping basket with all the things that you need for the dinner amounting to a total of €50. As you proceed to finalize your order, you are presented with the following special offer:



What would you do in this situation?

I ignore the opportunity and I do not buy the chocolate.

I want the chocolate, but I choose not to buy it.

I remove one of the items from my basket and I buy the chocolate instead.

I buy the chocolate in addition to the items already in my basket and I pay with a credit card.

I buy several chocolates and a pack of gum in addition to the items already in my basket and I pay with a credit card.

>>

Please indicate to what extent the following statements apply to you.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
1. I usually think carefully before I buy something.	○	○	○	○	○	○	○
2. I usually only buy things that I intended to buy.	○	○	○	○	○	○	○
3. If I buy something, I usually do that spontaneously.	○	○	○	○	○	○	○
4. Most of my purchases are planned in advance.	○	○	○	○	○	○	○
5. I only buy things that I really need.	○	○	○	○	○	○	○
6. It is not my style to just buy things.	○	○	○	○	○	○	○
7. I like to compare different brands before I buy one.	○	○	○	○	○	○	○
8. Before I buy something I always carefully consider whether I need it.	○	○	○	○	○	○	○
9. I am used to buying things 'on the spot'.	○	○	○	○	○	○	○
10. I often buy things without thinking.	○	○	○	○	○	○	○
11. It is a struggle to leave nice things I see in a shop.	○	○	○	○	○	○	○
12. I sometimes cannot suppress the feeling of wanting to buy something.	○	○	○	○	○	○	○
13. I sometimes feel guilty after having bought something.	○	○	○	○	○	○	○
14. I'm not the kind of person who 'falls in love at first sight' with things I see in shops.	○	○	○	○	○	○	○
15. I can become very excited if I see something I would like to buy.	○	○	○	○	○	○	○
16. I always see something nice whenever I pass by shops.	○	○	○	○	○	○	○
17. I find it difficult to pass up a bargain.	○	○	○	○	○	○	○
18. If I see something new, I want to buy it.	○	○	○	○	○	○	○
19. I am a bit reckless in buying things.	○	○	○	○	○	○	○
20. I sometimes buy things because I like buying things, rather than because I need them.	○	○	○	○	○	○	○

<< >>

What is your gender?

- Male
- Female

What is your age?

What is the highest degree or level of school you have completed?
(If currently enrolled, highest degree received)

- Less than high school
- High school graduate
- Bachelor's Degree (HBO or university)
- Master's Degree
- Doctorate Degree

On average, how often did you make an online purchase in the past year?

Examples of online purchases: apparel, travel products or services, books or music, event tickets, consumer electronics, beauty & personal care, video game-related products, etc.

- 0 times
- Once every 6 months
- Every other month
- Once a month
- Once a week
- More than once a week

How many of your online purchases were impulsive?

- I have never made an online purchase
- None of my online purchases were impulsive
- Not many (<40%)
- Roughly half (40-60%)
- A lot (60-80%)
- Almost all (>80%)

<< >>

You're done!

Thank you for participating in this survey. Your input has contributed to the study of brand personalities in relation to impulse buying.

If you would like to be informed about the results of the survey or if you have any questions, comments, or concerns in regards to the survey or the study in general, please write to the following e-mail address: 323108rv@student.eur.nl

Thank you for your time!

<< >>

C.2 Testing sig. of difference in brand personalities

Example of the results obtained using repeated measures ANOVA to test for the significance of the difference between brand personalities. In this case, the Responsibility dimension of the BPS of Geuens et al. is tested.

General Linear Model

Within-Subjects Factors

Measure: Responsibility

Brand	Dependent Variable
1	Responsibility_Milka
2	Responsibility_Lindt
3	Responsibility_Tony
4	Responsibility_Cote
5	Responsibility_Ferrero
6	Responsibility_Mars
7	Responsibility_Merci
8	Responsibility_Bounty

Descriptive Statistics

	Mean	Std. Deviation	N
Responsibility_Milka	4.692307692307693	1.445062326754500	26
Responsibility_Lindt	3.974358974358975	1.199715065886997	26
Responsibility_Tony	4.500000000000001	1.396026106091462	26
Responsibility_Cote	5.205128205128205	1.091693579625195	26
Responsibility_Ferrero	3.512820512820514	1.219219310253790	26
Responsibility_Mars	4.282051282051283	1.094196032374893	26
Responsibility_Merci	4.153846153846155	1.272725052723117	26
Responsibility_Bounty	4.269230769230770	1.363065925752941	26

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Brand	Pillai's Trace	.969	85.456[b]	7.000	19.000	.000	.969
	Wilks' Lambda	.031	85.456[b]	7.000	19.000	.000	.969
	Hotelling's Trace	31.484	85.456[b]	7.000	19.000	.000	.969
	Roy's Largest Root	31.484	85.456[b]	7.000	19.000	.000	.969

a. Design: Intercept

Within Subjects Design: Brand

b. Exact statistic

Mauchly's Test of Sphericity[a]

Measure: Responsibility

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Brand	.006	114.293	27	.000	.400	.456	.143

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: Brand

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: Responsibility

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Sphericity Assumed	45.682	7	6.526	30.694	.000	.551
	Greenhouse-Geisser	45.682	2.802	16.301	30.694	.000	.551
	Huynh-Feldt	45.682	3.192	14.309	30.694	.000	.551
	Lower-bound	45.682	1.000	45.682	30.694	.000	.551
Error(Brand)	Sphericity Assumed	37.207	175	.213			
	Greenhouse-Geisser	37.207	70.061	.531			
	Huynh-Feldt	37.207	79.810	.466			
	Lower-bound	37.207	25.000	1.488			

Tests of Within-Subjects Contrasts

Measure: Responsibility

Source	Brand	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Brand	Linear	3.010	1	3.010	11.619	.002	.317
	Quadratic	.132	1	.132	.607	.443	.024
	Cubic	.741	1	.741	3.010	.095	.107
	Order 4	3.557	1	3.557	53.450	.000	.681
	Order 5	15.583	1	15.583	79.128	.000	.760
	Order 6	1.399	1	1.399	8.433	.008	.252
	Order 7	21.260	1	21.260	63.243	.000	.717
Error(Brand)	Linear	6.477	25	.259			
	Quadratic	5.434	25	.217			
	Cubic	6.158	25	.246			
	Order 4	1.664	25	.067			
	Order 5	4.923	25	.197			
	Order 6	4.148	25	.166			
	Order 7	8.404	25	.336			

Tests of Between-Subjects Effects

Measure: Responsibility

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	3888.464	1	3888.464	342.854	.000	.932
Error	283.536	25	11.341			

Estimated Marginal Means
Brand

Estimates

Measure: Responsibility

Brand	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	4.692	.283	4.109	5.276
2	3.974	.235	3.490	4.459
3	4.500	.274	3.936	5.064
4	5.205	.214	4.764	5.646
5	3.513	.239	3.020	4.005
6	4.282	.215	3.840	4.724

7	4.154	.250	3.640	4.668
8	4.269	.267	3.719	4.820

Pairwise Comparisons

Measure: Responsibility

(I) Brand	(J) Brand	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.718*	.076	.000	.454	.982
	3	.192	.072	.368	-.059	.444
	4	-.513*	.108	.002	-.891	-.135
	5	1.179*	.127	.000	.735	1.624
	6	.410	.195	1.000	-.272	1.092
	7	.538*	.119	.003	.124	.953
	8	.423*	.071	.000	.176	.670
2	1	-.718*	.076	.000	-.982	-.454
	3	-.526*	.074	.000	-.786	-.266
	4	-1.231*	.104	.000	-1.595	-.866
	5	.462*	.098	.002	.119	.804
	6	-.308	.190	1.000	-.973	.357
	7	-.179	.141	1.000	-.673	.314
	8	-.295*	.081	.036	-.579	-.011
3	1	-.192	.072	.368	-.444	.059
	2	.526*	.074	.000	.266	.786
	4	-.705*	.117	.000	-1.116	-.295
	5	.987*	.115	.000	.586	1.388
	6	.218	.192	1.000	-.454	.889
	7	.346	.134	.448	-.122	.814
	8	.231*	.055	.008	.039	.422
4	1	.513*	.108	.002	.135	.891
	2	1.231*	.104	.000	.866	1.595
	3	.705*	.117	.000	.295	1.116
	5	1.692*	.135	.000	1.222	2.162
	6	.923*	.132	.000	.460	1.386
	7	1.051*	.078	.000	.779	1.323
	8	.936*	.101	.000	.582	1.290
5	1	-1.179*	.127	.000	-1.624	-.735

	2	-.462*	.098	.002	-.804	-.119
	3	-.987*	.115	.000	-1.388	-.586
	4	-1.692*	.135	.000	-2.162	-1.222
	6	-.769*	.192	.014	-1.440	-.098
	7	-.641*	.164	.018	-1.215	-.067
	8	-.756*	.128	.000	-1.202	-.311
6	1	-.410	.195	1.000	-1.092	.272
	2	.308	.190	1.000	-.357	.973
	3	-.218	.192	1.000	-.889	.454
	4	-.923*	.132	.000	-1.386	-.460
	5	.769*	.192	.014	.098	1.440
	7	.128	.135	1.000	-.343	.599
	8	.013	.164	1.000	-.560	.585
7	1	-.538*	.119	.003	-.953	-.124
	2	.179	.141	1.000	-.314	.673
	3	-.346	.134	.448	-.814	.122
	4	-1.051*	.078	.000	-1.323	-.779
	5	.641*	.164	.018	.067	1.215
	6	-.128	.135	1.000	-.599	.343
	8	-.115	.108	1.000	-.492	.261
8	1	-.423*	.071	.000	-.670	-.176
	2	.295*	.081	.036	.011	.579
	3	-.231*	.055	.008	-.422	-.039
	4	-.936*	.101	.000	-1.290	-.582
	5	.756*	.128	.000	.311	1.202
	6	-.013	.164	1.000	-.585	.560
	7	.115	.108	1.000	-.261	.492

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

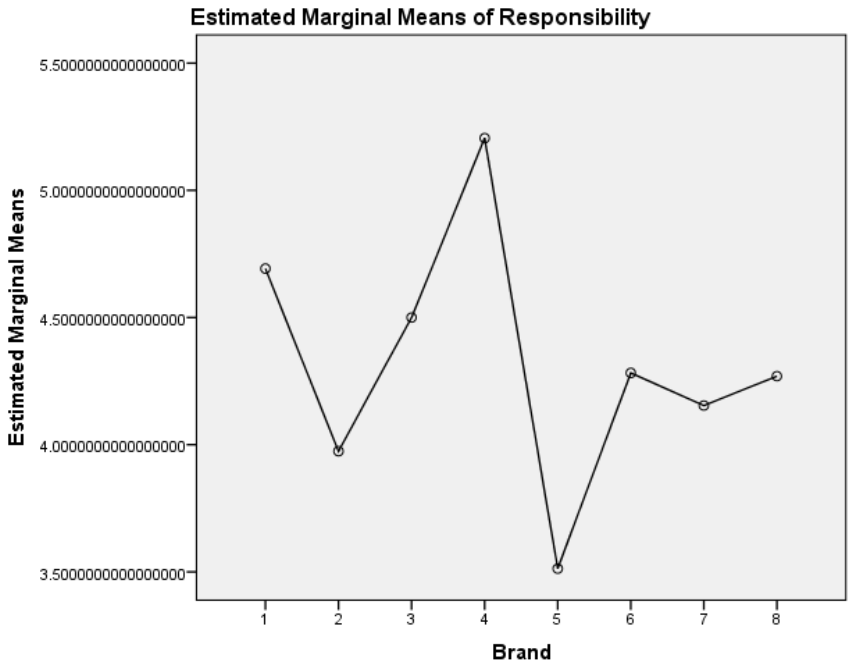
Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.969	85.456[a]	7.000	19.000	.000	.969
Wilks' lambda	.031	85.456[a]	7.000	19.000	.000	.969
Hotelling's trace	31.484	85.456[a]	7.000	19.000	.000	.969
Roy's largest root	31.484	85.456[a]	7.000	19.000	.000	.969

Each F tests the multivariate effect of Brand. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

Profile Plots



C.3 Multiple Regression Analysis

		Model 1		*Model 2*		*Model 3*		*Model 4*	
		β	**p**	**β**	**p**	**β**	**p**	**β**	**p**
	Constant	-.586	.006	-.586	.007	-.038	.939	-.035	.949
ik	Score Responsibility	.137	.148	.137	.155	.098	.293	.113	.384
ik	Score Activity	.168	.070 ^{T}	.168	.071 ^{T}	.192	.032**	.155	.250
ik	Score Aggressiveness	.068	.401	.068	.404	.010	.894	.008	.930
ik	Score Simplicity	-.019	.803	-.019	.805	-.035	.616	-.078	.466
ik	Score Emotionality	.238	.002**	.238	.003**	.225	.002**	.254	.020**
i	Côte-d'or	-.008	.948	-.008	.949	.005	.968	.007	.956
i	Bounty	-.023	.861	-.023	.862	-.038	.763	-.033	.808
i	Tony's Chocolonely	.015	.921	.015	.921	.067	.616	.083	.545
i	Lindt	-.058	.669	-.058	.670	-.048	.707	-.051	.699
i	Milka	-.059	.670	-.059	.671	-.062	.651	-.054	.712
i	Mars	-.084	.587	-.084	.589	-.064	.653	-.051	.735
i	Merci	-.220	.083^{T}	-.220	.085 ^{T}	-.247	.024**	-.244	.030**
ik	Brand Familiarity	.174	.043**	.174	.044**	.252	.004**	.249	.006**
j	Online vs. Offline			.001	.994	-.011	.862	-.069	.852
k	Cognitive State					-.297	.007**	-.292	.009**
k	Affective State					.153	.048**	.193	.098 ^{T}
k	Gender					.004	.955	.004	.996
k	Age					-.237	.007**	-.231	.010**
k	Bachelor's Degree					-.139	.123	-.131	.179
k	Master's Degree					-.010	.912	-.006	.951
k	PhD					-.265	.115	-.264	.125
k	OPH					-.176	.106	-.185	.100 ^{T}
k	OIPH					.432	.000*	.454	.000*
ijk	Interaction Responsibility*Online							-.043	.809
ijk	Interaction Activity*Online							.070	.707
ijk	Interaction Aggressiveness*Online							.000	.999
ijk	Interaction Simplicity*Online							.087	.534
ijk	Interaction Emotionality*Online							-.054	.670
	R^2	.157		.157		.338		.340	

Note: Dependent Variable: Impulse Purchase Intention * p < .001, ** p < .050, ^{T} p <.10

[a.] Controlled for brand specific effects, age, education level, online purchase history and online impulse purchase history.

[b.] Observations 48, 91, 120 and 123 were removed (>3 st. devs. from the mean residual).

[c.] VIF < 10 and tolerance > 0.2 thus no collinearity was observed.

D. The Impulse Buying Tendency Scale

The IBT Scale
(Verplanken & Herabadi, Individual Differences in Impulse Buying Tendency: Feeling and no Thinking, 2001)
Scale ranges from 1-7. 1 = strongly disagree, 7= strongly agree. Cognitive Items: 1. I usually think carefully before I buy something. 2. I usually only buy things that I intend to buy 3. If I buy something, I usually do that spontaneously. 4. Most of my purchases are planned in advance. 5. I only buy things that I really need. 6. It is not my style to just buy things. 7. I like to compare different brands before I buy one. 8. Before I buy something I always carefully consider whether I need it. 9. I am used to buying things ´on the spot´. 10. I often buy things without thinking. Affective Items: 11. It is a struggle to leave nice things I see in a shop. 12. I sometimes cannot suppress the feeling of wanting things I see in shops. 13. I sometimes feel guilty after having bought something. 14. I'm not the kind of person who ´falls in love at first sight´ with things I see in shops. 15. I can become very excited if I see something I would like to buy. 16. I always see something nice whenever I pass by shops. 17. I find it difficult to pass up a bargain. 18. If I see something new, I want to buy it. 19. I am a bit reckless in buying things. 20. I sometimes buy things because I like buying things, rather than because I need them. Note: Items, 1,2 4-8 and 14 should be reverse coded.