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Master's Thesis

The Role of Logos in Fast- and Luxury Fashion Co-Branding

A Mixed-Method Approach using Traditional and Neuroscientific Research to Analyze the Effects of Logos in Fashion Co-Branding Advertisements on Consumers' Responses to Products and Brands

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Abstract

While previous research has to some extent argued that Co-Branding between Fast Fashion (FF) and Luxury Fashion (LF) brands leads to positive effects for both brands involved, literature has also highlighted the potentially negative implications for Luxury Fashion brands, particularly in terms of quality perceptions, which can result in brand dilution. Neuroscientific insights contribute to these findings by emphasizing the underlying bottom-up and top-down processes that are involved in the processing of brand advertising. So far, however, no study has established a holistic model that combines findings from traditional branding research with cognitive neuroscience in this context. By combining these two research streams, the current study places special emphasis on the effects of the combination and placement of logos in Co-Branding advertisements on consumers' evaluation of product and brand quality as well as reward mechanisms towards the advertised product. This study proposes a mixed-method model, in which an online survey is used as a traditional research approach and combined with the neuroscientific method eye-tracking. Due to external situational factors, only the first experiment could be conducted as part of this study. Responses from n=224 female participants were used, consisting mainly of German and Danish adults, most of them being students. The participants were exposed to different fictitious advertisements, using established Fast Fashion and Luxury Fashion Brands. Ratings on perceived product and brand quality as well as product liking and wanting were measured using single item, seven-point Likert scales.

Results show that the branding conditions (single FF logo, single LF logo, combination of both logos) function as substantial biases for product evaluations. Perceived product quality ratings differed significantly with regard to the branding conditions. Hereby, the Co-Branded product was rated higher in perceived quality compared to the single Fast Fashion branded product, however lower compared to the single Luxury Fashion branded product. The same direction of findings, however not significant, occurred in terms of product liking. In contrast, product wanting showed the highest ratings in the Co-Branding condition, indicating a dissociation of the variables liking and wanting in this context. This effect was however not significant either and thus does not allow causal interpretation. The results further indicate higher, however non-significant, ratings in perceived brand quality for Fast Fashion brands and lower ratings in perceived brand quality for Luxury Fashion brands after the exposure to a Co-Branded advertisement. Additional results identify perceived product quality as a mediator in the relationship between perceived brand quality and product liking. While the current study reveals interesting findings leading to academic and managerial implications, it strongly recommends conducting the proposed eye-tracking experiment to shed light onto the bottom-up and top-down processes involved in the processing of Co-Branded advertisements.

Key-words: Co-Branding, Luxury Fashion, Fast Fashion, Logos, Advertising, Neuroscience, Eye-Tracking.

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List of Abbreviations

ANT	Associative Network Theory
AOI	Area of Interest
CB	Co-Branded
CBBE	Customer Based Brand Equity
DNRC	Decision Neuroscience Research Cluster
EEG	Electroencephalography
FC	Fixation Count
FF	Fast Fashion
FI	Fashion Involvement
GSR	Galvanic Skin Response
fMRI	Functional Magnetic Resonance Imaging
LF	Luxury Fashion
PBQ	Perceived Brand Quality
PPQ	Perceived Product Quality
PL	Product Liking
PW	Product Wanting
SD	Standard Deviation
TFT	Total Fixation Time
TTFF	Time to First Fixation
WOM	Word of Mouth

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1. Introduction

In the world of fashion, effective branding has become a critical success factor as it can help businesses create brand equity, foster consumer brand loyalty and enhance profitability in a fiercely competitive and fast-moving industry (Choi, 2014). As fashion scholar Bruno Remaury points out, traditional marketing and branding are based on an existing need for products, however, the fashion industry is based on creating a need where in reality there is none (Tungate, 2012). According to Remaury, fashion is essentially a factory that creates desire. Not surprisingly, fashion businesses are recognized as some of the world's most influential and valuable brands (Statista, 2020a). Of Interbrand's Best Global Brands Ranking, 13 brands are operating in the fashion industry, including Fast Fashion companies like Zara and H&M as well as Luxury Fashion brands such as Chanel, Gucci and Dior (Interbrand, 2019).

However, in a highly dynamic environment, a well-established brand name is not sufficient to sustain sales and profitability (Luck, Muratovski, & Hedley, 2014). Brands need to evolve and adapt to fierce competition, dynamic consumer needs and environmental changes (Mróz-Gorgoń, 2016). As it is the case in so many industries, the fashion sector faces constant changes in consumer behavior and preferences. As part of a process titled the "democratization of modern fashion" (Rosa, 2013), it has been widely observed that consumers are not staying inside specific fashion categories anymore. Instead, they are freely wearing and combining clothing of Luxury Fashion brands with those of Fast Fashion retailers, who have a completely different image and positioning (Amatulli et al., 2016; Tungate, 2012). It is assumed that one driving reason for this phenomenon is that customers want to create their own personal style and enjoy more freedom in terms of their purchasing choices. As a response to this particular consumer behavior and growing competition in the industry, one branding strategy has gained strong popularity among fashion retailers over the past ten years: Co-Branding (Mróz-Gorgoń, 2016). Co-Branding can be defined as a strategy in which two existing brands are paired together to create a single product offering. It promises the potential to increase the influence of brands, enter new markets and refresh a brand image to stay relevant to consumers.

Responding to contemporary consumer behavior, Co-Branding alliances between Fast and Luxury Fashion brands have become particularly popular in recent years. The Swedish Fast Fashion brand H&M can be seen as a veteran when it comes to Co-Branding collaborations with luxury brands. The retailer first collaborated with luxury designer Karl Lagerfeld in 2004 and has since then launched over 15 Co-Branding collaborations with luxury brands like Versace, Roberto Cavalli, Balmain and Lanvin (Yotka, 2016). Before the launch of these exclusive collections, the collaborations are often heavily marketed with

strong media coverage across online and offline platforms, showing campaign advertisements that picture the clothing items and the logos of both collaborating brands in varying positions (see Appendix A for examples of existing FF and LF Co-Branding advertisements). The strong media presence and branding efforts tend to lead to high levels of customer awareness for both alliance brands and often create a "hype" among consumers, resulting in the collections often being sold out within minutes after their launch and customers queuing for hours in front of the respective stores in an attempt to buy the Co-Branded clothing (Luck et al., 2014; Mrad, Farah, & Haddad, 2019).

At first glance, Co-Branding alliances between LF and FF brands seem like a win-win situation for both partners, leading to increased customer awareness and anticipation, a boost in sales and the opportunity to enter new markets and win over new customer segments. However, fashion literature highlights the potential negative effects of these collaborations, especially for Luxury Fashion brands (Bruce & Kratz, 2007; Dall'Olmo Riley, Pina, & Bravo, 2013; Hennigs, Wiedmann, Behrens, Klarmann, & Carduck, 2013). It is often argued that the positive effects of fashion Co-Branding alliances mostly pertain to the Fast Fashion brand, while the impact on the partnering Luxury Fashion brands is controversial due to a possible devaluation or dilution of the luxurious and high-end brand image (e.g. Hennigs et al. 2013; Mrad, Farah, & Haddad, 2019).

1.1 Research Aim and Question

Given the ongoing debates in the literature about the potential positive and negative effects of FF and LF Co-Branding collaborations, this thesis is aimed at adding knowledge to the respective field of research by focusing on such Co-Branding advertisements that include the logos of both brands. These advertisements are highly consumer-facing and are assumed to be one of the main communication instruments for Co-Branding alliances. Hence, the focus will lie on the influence of advertisements, including the featured logos, on customers' evaluations of perceived product and brand quality as well as product liking and wanting. The reward mechanisms liking and wanting are known to be working on a conscious and an unconscious level (Anselme & Robinson, 2015), which is why this research will take into consideration possible explicit as well as implicit reactions by consumers. By investigating implications for both fashion categories using the Fast Fashion brands H&M, Zara and Mango as well as the Luxury Fashion brands Gucci, Dior, and Chanel, the following research question will be answered:

How do logos in Fast- and Luxury Fashion Co-Branding advertisements influence consumers' perceived product and brand quality as well as product liking and wanting?

1.2 Primary Methodological Considerations

To conduct the theoretical and empirical research, the underlying methodological perspective needs to be defined. The current study applies the ontological perspective of objectivism, implying that the nature of reality is defined by social entities existing external to and independent of social actors. From an epistemological standpoint, this corresponds to a perspective of positivism. Within the positivist view, reality is assumed to be naturally observable and the researcher is seen as independent with no personal meaning attached to the subject (Saunders, Lewis, & Thornhill, 2014). In line with the positivist perspective as an empirical view, this study applies a hypothetic-deductive research approach where "laws present the basis of explanation, allow the anticipation of phenomena, predict occurrence and therefore permit them to be controlled" (Saunders et al., 2014, p. 117). Here, hypotheses are developed based on the theoretical considerations and the design of a research strategy to test the hypotheses (Saunders et al., 2014).

Related to the research strategy, this study will analyze and critically reflect on two types of research approaches. The traditional method using an online experiment as well as the neuroscientific method using an eye-tracking experiment. A study is thereby developed to test specific relationships between different variables (Anderson & Whitcomb, 2000). Considering the specific method of eye-tracking, Walvis (2007) argues that neuroscientific methods can provide the empirically endorsed reliability and positively contribute to the constructivist narrative notions of the brand management field. More specifically, the study aims to investigate causal links between the logo placement and combination of Luxury Fashion and Fast Fashion brands on consumers' evaluation of product and brand quality as well as product liking and wanting. While this can be analyzed with traditional methods, the use of an eye-tracker can reveal additional insights regarding the role that visual attention plays in this process.

Hence, both research fields can contribute to answering the proposed research question. In section 2.2, both research methods will be reflected in more detail. Due to uncontrollable and restrictive situational factors, only the online experiment is conducted and evaluated. The results are statistically analyzed using the software SPSS. The survey provides additional research opportunities for a possible expansion of the study via an eye-tracking experiment. Finally, the methodology is evaluated based on the factors of validity and reliability (Zikmund, Babin, Jon, & Griffin, 2010).

1.3 Delimitations

As the scope of this master's thesis is limited in terms of time, financial resources and length of the paper, the following section discusses delimitations of this work based on the choices made by the researchers. Delimitations related to theory, methodology and the chosen research field will be elaborated.

Delimitations related to the chosen field of research

Co-Branding is a strategy not only limited to the fashion industry and practical experience shows that several brand alliances exist in other industries such as fast-moving consumer goods, services, information technology and consumer durables (Bernazzani, 2019; Washburn, Till, & Priluck, 2000). However, based on extensive literature research conducted by the authors, the focus is put on the field of research committed to Co-Branding collaborations in the fashion industry, specifically between Luxury and Fast Fashion brands, as these kinds of alliances are perceived as highly interesting and relevant at current times, yet still under researched.

Theoretical delimitations

The literature review, which provides the theoretical basis of this thesis, opens with traditional perspectives in branding and brand equity as defined by Aaker (1991) as an important foundational concept representing the main purpose in brand building. Co-Branding partnerships provide a strategic opportunity to achieve brand equity and foster a positive image inside consumers' minds (Mróz-Gorgoń, 2016). Hence, by presenting findings from existing fashion literature, the different dimensions of brand equity are used to illustrate the possible effects of Co-Branding partnerships on consumers' attitude formation towards Luxury and Fast Fashion brands. While all dimensions of Aaker's (1991) brand equity model are explained, specific emphasis is put on the effects of Co-Branding on the quality dimensions of the framework. Building on this comprehensive brand equity model by Aaker (1991), the consumer-based brand equity model (CBBE) developed by Keller (1993) is also introduced, which focuses entirely on brand equity from a customer perspective. Based on this framework, it is argued that brand equity can be created when consumers are familiar with a brand and hold some favorable, strong and unique brand associations in their memory. In this context, two exemplary association networks are visualized for the fashion brands Zara and Dior.

Over the past two decades, a great amount of research has addressed the concept of brand equity and it has been accepted as a critical success factor to differentiate firms from its competitors (Farjam & Hongyi, 2015). Many definitions (e.g. Simon & Sullivan 1993; Yasin, Noor, & Mohamad 2007; Yoo, Donthu, &

Lee, 2000) and frameworks (e.g. Wang & Finn 2012; Yoo, Donthu & Lee 2000) concerning brand equity have been developed over time, with some of them in the more recent years. However, even though the approaches towards brand equity by Aaker (1991) and Keller (1993) date back to the 1990s, in current traditional perspectives on branding they remain as one of the most important, accepted and widely used theoretical frameworks (Baalbaki & Guzman, 2016; Smith, Gradojevic, & Irwin, 2011). Hence, the notions of these two pioneering brand management scholars are selected to build the theoretical basis for discussion of this research paper.

In recent years, frameworks in traditional theories of branding have been challenged by advances in consumer neuroscience and the important insights this field provides into the conscious and unconscious mechanisms of branding (Bechara & Damasio, 2005; Plassmann, Venkatraman, Huettel, & Yoon, 2015; Shiv & Fedorikhin, 1999; Zaltman, 2003). Theoretical frameworks like the CBBE model by Keller (1993) rely on traditional measurements to infer conclusions about consumer attitudes towards brands and do not address the unconscious aspects of consumption and branding. But especially in the field of advertising, it is argued that the unconscious processes play a crucial role (Li, Walters, Packer & Scott, 2016; Poels & Dewitte, 2006). For this reason, the theoretical foundation for discussion is expanded by including selected insights from cognitive neuroscience. To illuminate the neurophysiological mechanisms of the effects of Co-Brands on product preferences, the interdisciplinary value-based model of choice is presented (Plassmann, Ramsøy & Milosavljevic, 2012). The different preference formation phases of this model are subsequently elaborated and applied to the context of a Co-Branded product. Further, to provide theoretical background about relevant mechanisms that underlie many choice scenarios in the consumer buying process, the Dual Approach System by Kahneman (2002) is introduced, which differentiates between the two thought processes System 1 and System 2, that occur during human decision making. Theories of dual-processing have emerged in the mid-1980s and since then a large body of research in different disciplines has been dedicated to the development of these theories (Evans, 2010; Gawronski & Creighton, 2013). However, within branding literature and practice, Kahneman's (2002) Dual Approach System theory is chosen for further discussion in this research due to its simplicity and intuitive nature. The two-system view is complemented by findings of Pieters and Wedel (2004), who propose a conceptual model of attention capture by distinguishing between bottom-up and top-down attention in advertisements. Using these insights, specific findings related to brand logos in the context of bottom-up and top-down processes are presented. To provide a theoretical basis for reward mechanisms of consumers to Co-Branding advertisements, the concepts of conscious and unconscious wanting and liking are presented as distinct brain processes that represent humans' reward mechanisms. Lastly, specific emphasis is placed on logos in the context of Co-Branding. Hereby a conceptualization of Garner (1974),

who describes two factors of logos, a visual structure and a meaning structure, is used as a foundation. Even though multiple definitions of the logo concept exist (e.g. Foroudi, Melewar & Gupta, 2017; Papert 1999), the one by Garner (1974) is chosen as it allows to not only classify traditional research but also to sort neuroscientific findings according to the two factors.

Methodological delimitations

The focus of this research was initially set solely on the eye-tracking experiment, as it is assumed an optimal research method to explore the conscious and unconscious influences of different logo conditions and placements in Co-Branding advertisements on consumer evaluations of quality and their liking and wanting of the products. Other noninvasive neuroscientific methods were considered too, such as galvanic skin response (GSR) to measure the intensity of emotions and cognitive load (Westerink, van den Broek, Schut, van Herk, & Tuinenbreijer, 2008) as well as Electroencephalography (EEG) to detect possible approach and avoidance motivations towards different advertisements (Ohme, Reykowska, Wiener, & Choromanska, 2009). However, due to the non-accessibility of these devices to the researchers and the large financial resources needed to acquire them, these methods were excluded from the study.

Due to the sudden outbreak of the Coronavirus and the closure of the laboratory used for testing, the authors decided to adapt the research method to an online survey, as this is considered the best possible alternative to the eye-tracking experiment. Other methods such as focus interviews with consumers or industry experts could have been conducted too, however, due to the ongoing situational factors, time restrictions and the aim to collect quantitative data, the online survey is chosen as the final method to provide more generalizable results.

When setting up the experiments, a number of possible variables were taken into consideration to deliver insights that the field of research is still lacking. For the independent variables, altering the different logos' sizes and colors was considered, however to not overcrowd the experiment with variables, the focus is solely on the logo condition (single logo FF, single logo LF and logo combination) and placement (LF logo up and FF logo up). Choosing logo condition and placement as independent variables is also deemed as the most interesting and relevant approach, as this is in line with commonly used Co-Branding advertising techniques. For the dependent variables, purchase intention and brand memory were looked at as possible interesting constructs to be measured through the experiment, however, the aim of this research is focused on consumer perceptions and reward components influenced through advertisements at the early stages of the consumer buying process (Kotler & Armstrong, 2010), which subsequently influence purchase intention and post-purchase behavior. Hence the variables perceived product and brand

quality as well as product liking and wanting are put in focus. The first two variables are closely related to elements of brand equity (Aaker, 1991), which is vital for building strong brands and ensuring success in the marketplace. Moreover, perceived quality is one of the main attributes that distinguishes Fast Fashion from Luxury Fashion brands, hence it is considered interesting to observe if this measure is altered when two opposing fashion categories are combined in Co-Branding advertisements. The two additional dependent variables chosen to reflect participants' reward mechanisms are product liking and wanting, which are assumed to be closely linked to purchase intention. The two concepts are known to be working on a conscious and unconscious level (Anselme & Robinson, 2015) and are hence considered as highly relevant to test in the eye-tracking experiment in relation to subliminal influences of stimuli.

Concerning the stimulus material used in both, the survey and the eye-tracking experiment, the focus is put on female clothing items, specifically on black dresses. To increase the validity of the research, the experiment could have been conducted using also other clothing items like shirts, pants, shoes and accessories. However, the researchers of this thesis aim to keep the study compact to not risk participants losing their focus and interest during the experiment due to the increased length and required effort. Instead, focusing on one fashion item for the advertisements and analyzing the effects for this condition in detail is deemed an appropriate approach. In terms of the sample, only women are selected as participants. This decision is made to reduce potential biases when answering questions about product liking and wanting, as the dresses are female clothing items. Moreover, this choice is justified by the fact that women account for the main proportion of the Fast Fashion market (Barnes & Lea-Greenwood, 2006) as well as the Luxury Fashion market (Okonkwo, 2007). Furthermore, only highly popular and well-known Fast- and Luxury Fashion brands are selected for the experiment to ensure as many participants as possible are familiar with the brands shown, enabling easier evaluations of product and brand quality.

1.4 Structure of Research

Figure 1 presents the structure of this thesis. After the *introduction* (part 1), which includes the explanation of the background and the research question of the thesis as well as first considerations about methodology and delimitations, a *theoretical framework* (part 2) is developed. For the theoretical framework, two complementary research streams are considered, that build the basis of this research. First, selected theories within *traditional consumer behavior* are presented and connected to the context of Co-Branding and logo placement in the fashion industry. Hereby, brand equity approaches by Aaker (1991) and Keller (1993, 2008) provide the foundation for explaining Co-Branding strategy and attitude formation towards Co-Branded products. The attribution theory as well as the elaboration likelihood model by Petty and

Cacioppo (1986) are further presented to add to the understanding. Afterwards, the concept of Co-Branding between Fast Fashion and Luxury Fashion brands is defined and explained. For that matter, selected literature is introduced and divided according to Aaker's (1991) brand equity dimensions, explaining the positive and negative effects that can occur for both partnering brands. Specific emphasis is hereby placed on the effects of Co-Branding on the quality dimensions of the brand equity model. After a critical appraisal of the measurement techniques of the aforementioned studies, gained insights from extant research are enriched with findings from *cognitive neuroscience.* Hereby, the value-based model of choice is presented and connected to Co-Branding in the fashion industry, followed by an introduction to the conscious and unconscious effects of human decision making. This section focuses on the general concept of human attention, the dual-approach system introduced by Kahneman (2002), as well as bottom-up and top-down mechanisms (Pieters & Wedel, 2004) in advertisements.

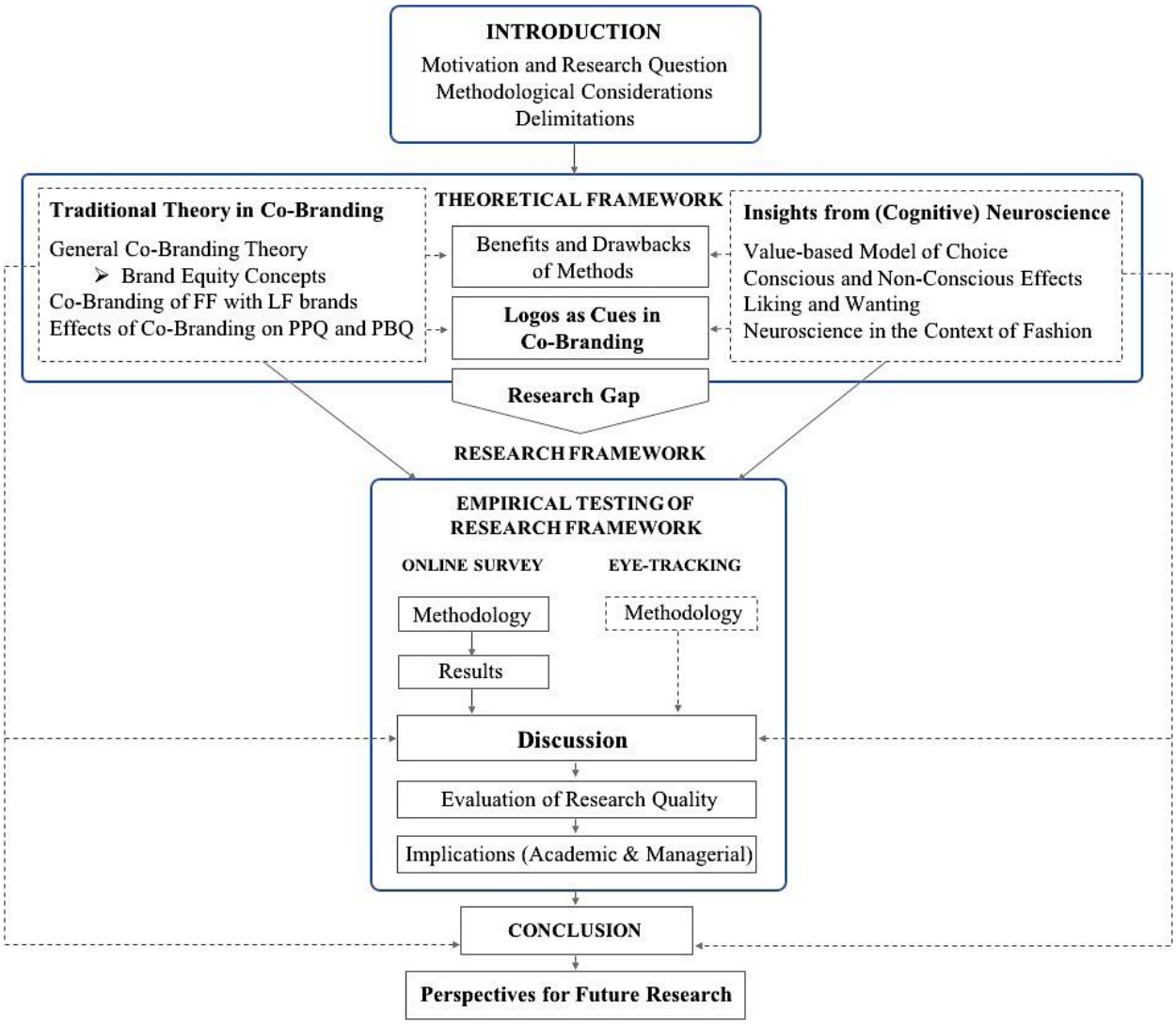

Figure 1: Framework presenting the structure of the thesis

Subsequently, selected literature findings on product wanting and liking, as well as specific neuroscientific studies in the fashion context are presented. After the presentation of general related studies within traditional and neuroscientific research streams, an additional section is dedicated to the specific topic of logo elements and their role for consumers' product evaluation. As this part presents the core aspect of this study, research from traditional branding literature as well as neuroscience is taken into consideration. Afterwards, based on the findings from both research streams, a *research gap* is identified.

In part 3, the overarching *research framework* is developed, along with a presentation of the involved variables and the proposed hypotheses. Hereby, theory from both presented research streams are used to justify the expected effects. Part 4 presents the *empirical testing of the proposed research framework*. In this section, two research methodologies are presented: the original *eye-tracking experiment* and the modified *online survey*. However, only the results of the latter are statistically analyzed and presented. Part 5 includes the *discussion* of findings, with links to traditional and neuroscientific literature. It is further illustrated how additional insights from the proposed eye-tracking experiment can enrich these findings. After the *evaluation of the research quality*, academic and managerial *implications* are derived based on the findings of the study. Finally, parts 6 and 7 provide a conclusion of the research paper and open up perspectives for future research. Both traditional marketing theory and insights from neuroscience are considered when deriving possible avenues for future research.

2. Theoretical Framework

In this section the theoretical framework is developed, serving as a basis to build a research model that can answer the proposed research question. Hereby studies from traditional marketing theory are presented and first connected to the field of Co-Branding in the fashion industry. Afterwards, findings are enriched with neuroscientific research approaches. A last section is solely dedicated to the role of logos in advertising, representing the core aspect of the thesis, followed by a definition of the research gap.

2.1 Traditional Approaches to Co-Branding in the Fashion Industry

The review of selected traditional branding literature starts with general influential models in the context of consumer behavior and branding and connects them to the field of fashion and Co-Branding. Afterwards a closer focus is placed on the specific field of Fast Fashion and Luxury Fashion Co-Branding, followed by an examination of the effects of Co-Branding on perceived product and brand quality.

2.1.1 General Co-Branding Theory

Brand equity theories based on notions by Aaker (1991) and Keller (1993) provide the basis to explain the underlying processes in Co-Branding advertisements, followed by a description of the concept of Co-Branding and the attitude formation towards Co-Branded products. Hereby, a number of marketing theories are presented that help understanding the processes of Co-Branding.

2.1.1.1 The Role of Brand Equity in Marketing

During the last two decades, the general concept of brand equity has been viewed and conceptualized from a variety of perspectives (Moisescu, 2005). The construct began to be widely used in the 1980s by advertising practitioners and was further popularized by David Aaker (1991). Other important academic contributions related to the concept have been published by scholars over the course of the following years, one of them being Kevin Lane Keller (1993). The perspectives and approaches to brand equity by Aaker (1991) and Keller (1993) remain as two of the most influential and popular ones to this day, which is why they will be put in focus in the following (Moisescu, 2005).

Aaker (1991) defines brand equity in terms of a set of assets and liabilities, also referred to as the sources of brand equity (Gill & Dawra, 2010). In his bestselling book "Managing Brand Equity", he writes that brand equity is "a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm/or to that firm's customers" (p. 15). The definition suggests that brand equity thereby provides value for firms as well as customers. For consumers, it endows the product with value that often goes beyond the functional benefits and facilitates preferences and purchase intention (Cobb-Walgren, Ruble & Donthu, 1995; Moradi & Zarei, 2011). In terms of providing value for the firm, Washburn and Plan (2002) point out that enhancing the level of brand equity has direct implications for firms, as it affects customers willingness to pay, the effectiveness of marketing communication, as well as the effectiveness of brand extensions and licensing opportunities. The creation of a strong brand equity is therefore often considered to be the main purpose in brand building (Aaker, 1991; Keller, 1993, 2008).

Although Aaker (1991) claims that the assets and liabilities on which brand equity is based can differ depending on the context, they can be grouped into five categories: *brand awareness, brand associations, brand loyalty, perceived quality,* and *other proprietary assets. Brand awareness* refers to the strength of a brand's presence in consumers' minds (Aaker, 1991). It can provide a company with a sense of familiarity and recognizability, which is critical for being selected over an unknown brand. Brands must

first enter the consideration set before they are chosen for purchase, and unfamiliar brands often have little chance in this situation (Aaker, 1991). *Brand associations* are defined as anything that is linked to the brand in consumers' minds, which can vary in the level of strength. A strong set of brand associations may also be the basis of successful brand extensions. *Brand loyalty* describes how likely a customer is to switch to another brand. A loyal consumer base reduces a firm's vulnerability to competitive efforts. Competitors are likely to be discouraged from spending resources to attract highly satisfied customers. *Perceived quality* is described as the customer's subjective evaluation of the quality level that the brand offers (Aaker, 1991). The quality perception can take on different forms for different industries, however Aaker (1991) argues that it will always be a measurable and crucial brand characteristic. As perceived quality is a decisive component in customers' evaluation and purchase intentions, it can lead to substantial competitive advantage (Aaker, 1991; Lakhal, 2009; Ophuis & Van Trijp, 1995). According to Aaker (1991), perceived quality can also be the basis for a successful brand extension. If a brand is well-regarded in a specific context, the assumption is that it will have high quality in a related context. Aaker's (1991) fifth dimension, *other proprietary assets*, consists of patents, trademarks and channel relationships, which can protect brand equity from competitors and attempts to erode the customer base. While the first four dimensions represent consumers' perceptions and reactions to the brand, the fifth dimension describes assets within the company.

Keller (1993, 2008) builds on the first four dimensions and sees brand equity entirely from the perspective of the individual customer. He defines it as "the differential effect of brand knowledge on consumer response to the marketing of the brand" (1993, p. 1). Hence, in his Customer-Based Brand Equity Model (CBBE), the power of a brand comes from the brand knowledge that lies in the minds of consumers. Brand knowledge thereby consists of brand awareness and brand image, which is built through different associations attached to the brand that vary in strength, favorability and uniqueness (Keller, 2008, p. 48). Brand equity approaches are grounded in traditional cognitive research where the consumer is believed to decide based on deliberate reasoning and systematic combination of different information (Arnould, Price, & Zinkhan, 2005; Heding, Knudtzen, & Bjerre, 2015). This information is stored in the consumer's mind as cognitive elements that are interrelated networks. Thereby, the so-called nodes in the network refer to the information itself, whereas the links describe the strength of the associations (Keller, 2008). In a decision making situation, consumers tend to connect, weigh and compare the information elements (Heding et al., 2015). There is a general consensus in literature that the amount of equity that a brand holds is not static in nature. In every touchpoint with the brand, new informational elements can be developed or old ones can be modified (Keller, 2008). It is assumed that a marketer's goal is to create strong, unique and favorable associations towards the brand in consumers' minds. This knowledge will

then lead to brand/product preference as well as behavioral and cognitive loyalty (Cobb-Walgren, Ruble, & Donthu 1995; Keller 1993, 2008). Figure 2 shows two examples of such association network structures for the Luxury Fashion brand Dior and the Fast Fashion brand Zara.

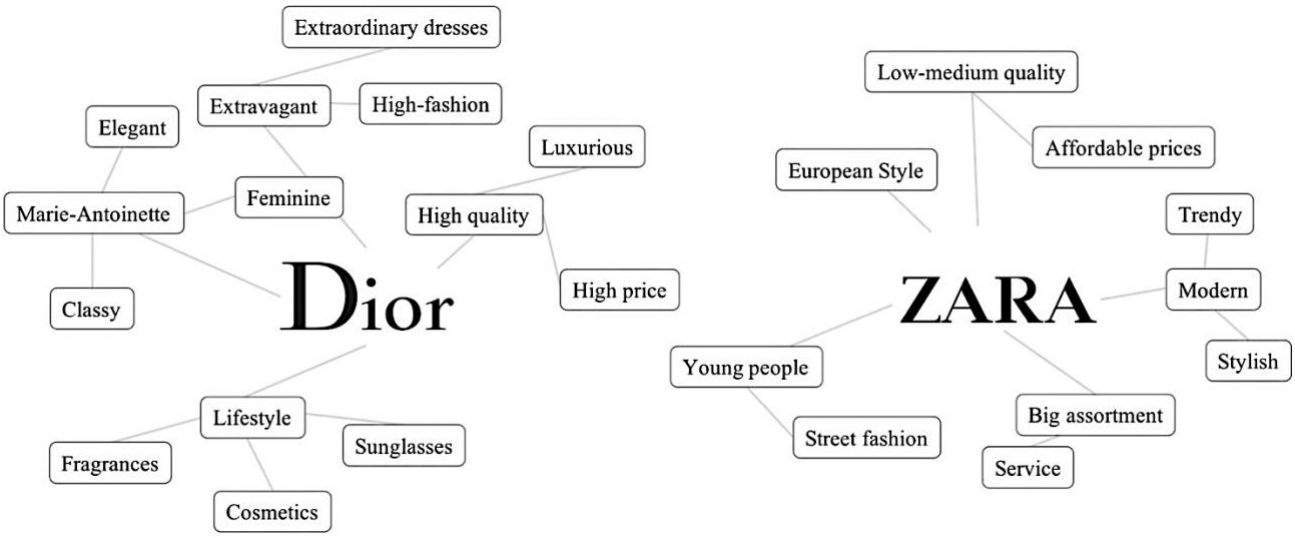

Figure 2: Association networks adapted from Keller (2008). *Own illustration based on Free Association Test (Appendix B)*

When reflecting on both conceptualizations by Aaker (1991) and Keller (1993), it becomes evident that both views are customer oriented and emphasize the crucial role of brand awareness and associations. Despite this commonality, differences in the two approaches exist. Most strikingly, the Customer-based Brand Equity Model of Keller (1993) stems from a much more detailed conceptual foundation. A strong focus is put on consumers and their knowledge of the brand. However, Aaker's (1991) model is deemed to complement the CBBE model quite well, as it places emphasis on the important aspect of perceived quality, which is highly relevant for the underlying research of this paper. Aaker (1991) also gives more accuracy of details in relation to the benefits of brand equity, which he divides into benefits for customers and for the firm.

2.1.1.2 Co-Branding Strategies

A new strategy for brands to create brand equity lies in the creation of Co-Branded products or product lines. Co-Branding can be defined as a brand alliance strategy in which two or more brands collaborate and launch a product under the collaborating brand names (Blackett & Board, 1999). In that sense, Co-Branding can be termed as a special type of brand extension - one where not one brand extends into a

different market, but rather partners with a second brand that might have more expertise or awareness in a specific segment or that has an attribute that the brand would like to benefit from (Oeppen & Jamal, 2014). Co-Branding can be classified in the following forms: ingredient Co-Branding, same company or joint venture Co-Branding (Shen, Choi, & Chow, 2017). Ingredient Co-Branding describes the situation in which two different brands are producing a product using ingredients from both brands (Oeppen & Jamal, 2014). Same company Co-Branding takes place when two brands collaborate that are belonging to the same company (Shen et al., 2017). Lastly, joint venture Co-Branding is the collaboration between two different brands that release their product under both brand names (Blackett & Board, 1999). Ingredient Co-Branding is more likely to occur in utilitarian products, such as groceries, whereas joint venture Co-Branding is more likely to occur with products that are hedonic or experiential, such as clothing or accessories (Mrad et al., 2019). According to Swaminathan et al. (2015), the collaborating brands can either have complementary or similar attribute levels. Thereby an attribute-complementary Co-Branded partnership describes a type of brand alliance in which both brands have a common set of comparable attributes, however they differ in the attribute salience. This can indicate that for example one brand has a higher rating in one attribute than another (Park, Jun, & Shocker, 1996). An attribute-similar partnership on the other hand describes a partnership in which both brands have a common set of attributes as well, however, in this case they are also similar in salience. Hence, the two brands have similar high ratings on the same attributes (Park et al., 1996).

2.1.1.3 Attitude Formation Towards Co-Branded Products

A number of conceptual models within traditional marketing theory can be used to explain the attitude formation towards Co-Branded products and consequently how this effects the attitude towards the participating brands. The first conceptual model examining attitudes towards Co-Branding was developed by Simonin and Ruth (1998). In their study, the authors displayed brand alliances of familiar brands from the automotive and mobile phone industry on print advertisements to a total of 350 participants. They found that a Co-Branded product has the potential to modify attitudes toward the partnering brands. These effects, which the authors call spillover effects, allow brands to benefit from the other brand's positive associations and perceived quality, which according to Aaker (1991) can be classified as dimensions of brand equity. In their model the authors place great emphasize on how the pre-attitudes toward both brands significantly influence the attitude towards the alliance and consequently the post attitude towards the involved brands (Simonin & Ruth, 1998). Raufeisen, Wulf, Köcher, Faupel and Holzmüller (2019) developed a conceptual model that explains the functioning of such spillover processes by integrating different theories. Figure 3 visualizes the adapted model along with the theories.

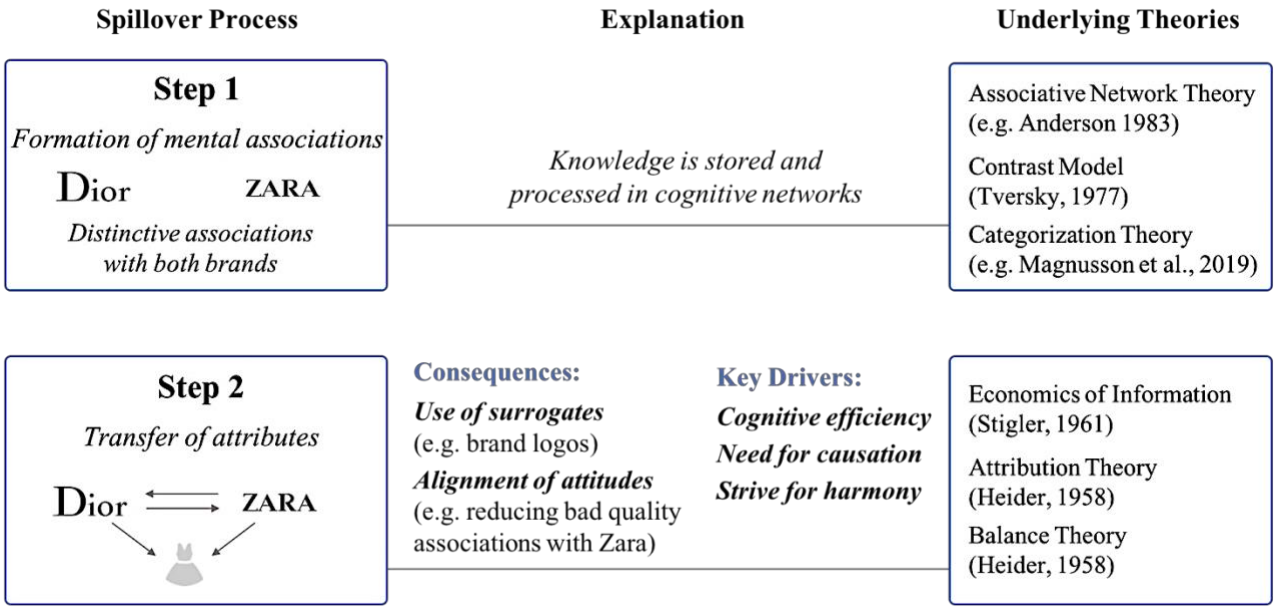

Figure 3: Spillover process in Co-Branding. Own illustration adapted from Raufeisen et al. (2019)

Raufeisen et al. (2019) relate spillover effects to three different research domains: brand extensions, country of origin effects and Co-Branding. As the latter is the focus of the current thesis, the model and integrated theories are only put in relation to Co-Branding and are connected to the already introduced fictious Co-Branding example of Dior and Zara.

Step 1 describes the *formation of mental associations*. According to Raufeisen et al. (2019), a prerequisite for spillover effects to occur is that two objects are cognitively connected. This depends on how individuals store and process information. Hereby, the authors draw on the Associative Network Theory (ANT) (e.g. Anderson, 1983). The theory relates to notions of Keller (2008) that were already explained in 2.1.1.1. According to ANT, knowledge is stored in a network structure of so-called nodes. Thereby, each node represents a certain memory or information. The nodes are connected by links, which represent associations between the different parts of information. If one node is activated, the activation is further spread to the connected links. Hereby, the strength of the activation depends on the intensity of the association. The intensity depends largely on how similar the two objects are, whereby a strong similarity results in increased activation of the associated construct. In this context Raufeisen et al. (2019) draw on the contrast model by Tversky (1977). According to this model, the similarity between two objects is determined by a matching process, which describes a function of the object's similar features and the subtraction of their different features (Tversky, 1977). Based on the network of information, people use cognitive heuristics to structure knowledge and simplify the processing of new information (Tversky & Kahneman, 1974). People thereby build "categories" or "schemas" that define bigger concepts and hence

simplify decision making (Magnusson, Krishnan, Westjohn, & Zdravkovic, as cited in Raufeisen et al., 2019). Relating these theories to Co-Branding, it seems like the closeness of associations between two brands depends on how similar the specific brands are and the underlying concepts. Two brands within the fashion industry might be connected by the overarching category of fashion. However, within this category they could be connected with totally different and distinctive associations that separate the two knowledge structures from each other. This was visible in the association networks in Figure 2, where Dior is connected to associations like "high quality", "luxuriousness" and "extravagance", whereas Zara is connected to associations like "affordable prices", "big assortment" and "young people". The two brands appear to be mentally connected by the overarching concept of fashion, however, within this structure they are linked to separate association networks. The theory can also be related to the classification of Fast Fashion and Luxury Fashion as attribute-complementary (Swaminathan et al., 2015). Hereby, the two brands could be connected by the association with the concept of quality. However, as they have totally different values on this concept (low quality vs. high quality), two separate association networks are formed.

The second step describes the *transfer of attributes* between these connected entities. Raufeisen et al. (2019) refer to three theories that explain the motivation to mentally transfer attributes from one entity to the other: economics of information theory (Stigler, 1961), attribution theory (Heider, 1958) and balance theory (Heider, 1958). According to economics of information theory, people strive toward an optimum combination of the amount of searching and marginal return (Stigler, 1961). Simply put, people want to make the minimum possible effort to get the best possible explanation for a certain circumstance. This is especially apparent if the provided information appears to be asymmetrical as well as transparent and if time and cognitive resources are limited. In this case information substitutes are used to sort the available information source (Raufeisen et al., 2019). In the case of Co-Branding, this would indicate that if for example the quality of the product is hardly observable the two brand names are used as information substitutes.

Even more applicable to Co-Branding is the attribution theory by Heider (1958). According to the theory, which origins in the context of social behavior, people try to explain the causes of someone's behavior by using information that is observable and attributing it to either dispositional (internal causes) or situational causes (external causes). Raufeisen et al. (2019) point out that people use "information surrogates" if some information is not available. These can appear in form of signals, which are described as observable characteristics that are subject to manipulate the interpreter (Spence, as cited in Raufeisen et al., 2019). Relating this theory to the context of Co-Branding, people use information that is available to them, like

the two brand logos to explain the item's quality, as the actual quality is not observable directly. It therefore depends on which entity is most accessible for the interpreter (Feldman & Lynch, as cited in Raufeisen et al., 2019). If one entity appears to have a stronger association with a certain concept, it is less effortful to transfer this association to the specific item than to form a new one. In the context of Luxury and Fast Fashion brands, which have stronger associations to different concepts, it depends on the strength of associations with specific concepts whether they are attributed to the clothing item or not. For example, if a Luxury Fashion brand is more strongly associated with high quality than a Fast Fashion brand is with low quality, it is likely that the Co-Branded fashion item would be rated higher in quality. However, it needs to be considered, that this also highly depends on the consumer's preexisting mental networks (Roehm & Tybout, as cited in Raufeisen et al., 2019). If a certain Fast Fashion brand is strongly connected with low quality in an individual consumer's mind, the perception of quality of the specific fashion item could be perceived lower, leading to a transfer of this evaluation to the Luxury brand as well.

As a third motivator to transfer one attribute to another, Raufeisen et al. (2019) mention the Balance Theory by Heider (1958). According to this theory, people prefer balanced mental states, so that the connections between the involved entities fit together in harmony. If there is a situation that causes disharmony, people apply different strategies to achieve harmony again. One of those strategies is changing the attitude towards the entity that causes disharmony. In the context of Co-Branding, Fast Fashion may be regarded as low quality. If this brand now collaborates with a Luxury Fashion brand that is usually associated with high quality clothing, it is likely to cause disharmony for the consumer. To achieve a balanced state, people might reconsider their previous perception about the Fast Fashion brand and conclude that these products might not have such a bad quality as assumed. This aligning of attitudes by transferring characteristics of one entity to another, helps consumers to overcome states of disharmony.

Simonin and Ruth (1998) further highlight that the transfer of characteristics or spillover effects can be asymmetrical, leading to one brand benefitting from more positive associations than the other. This can even lead to spillover effects actually harming one of the involved brands. The findings by Simonin and Ruth (1998) have been validated by multiple studies executed within the food, car and mobile phone sector (e.g. Baumgarth 2004; Helmig, Huber, and Leeflang 2008; Mazodier and Merunka 2014). Washburn, Till, and Priluck (2000) examined Co-Branding in the context of food products and established a direct link between brand equity and a Co-Branded product. According to the authors, a Co-Branding alliance could offer benefits for both participating brands. Although low brand equity brands would gain most from a brand alliance, a brand with high brand equity must not necessarily lose positive perceptions. However, they could suffer if a partner brand has a very low quality perception or a bad image.

When looking at the process of this attribute transfer, other authors mention the importance of involvement in this context (e.g. Wason & Charlton, 2015). The authors refer to the elaboration likelihood model developed by Petty and Cacioppo (1986) as a traditional attitude formation framework. Figure 4 visualizes the elaboration likelihood model adapted to the context of Co-Branding between the Luxury- and Fast Fashion brands Dior and Zara.

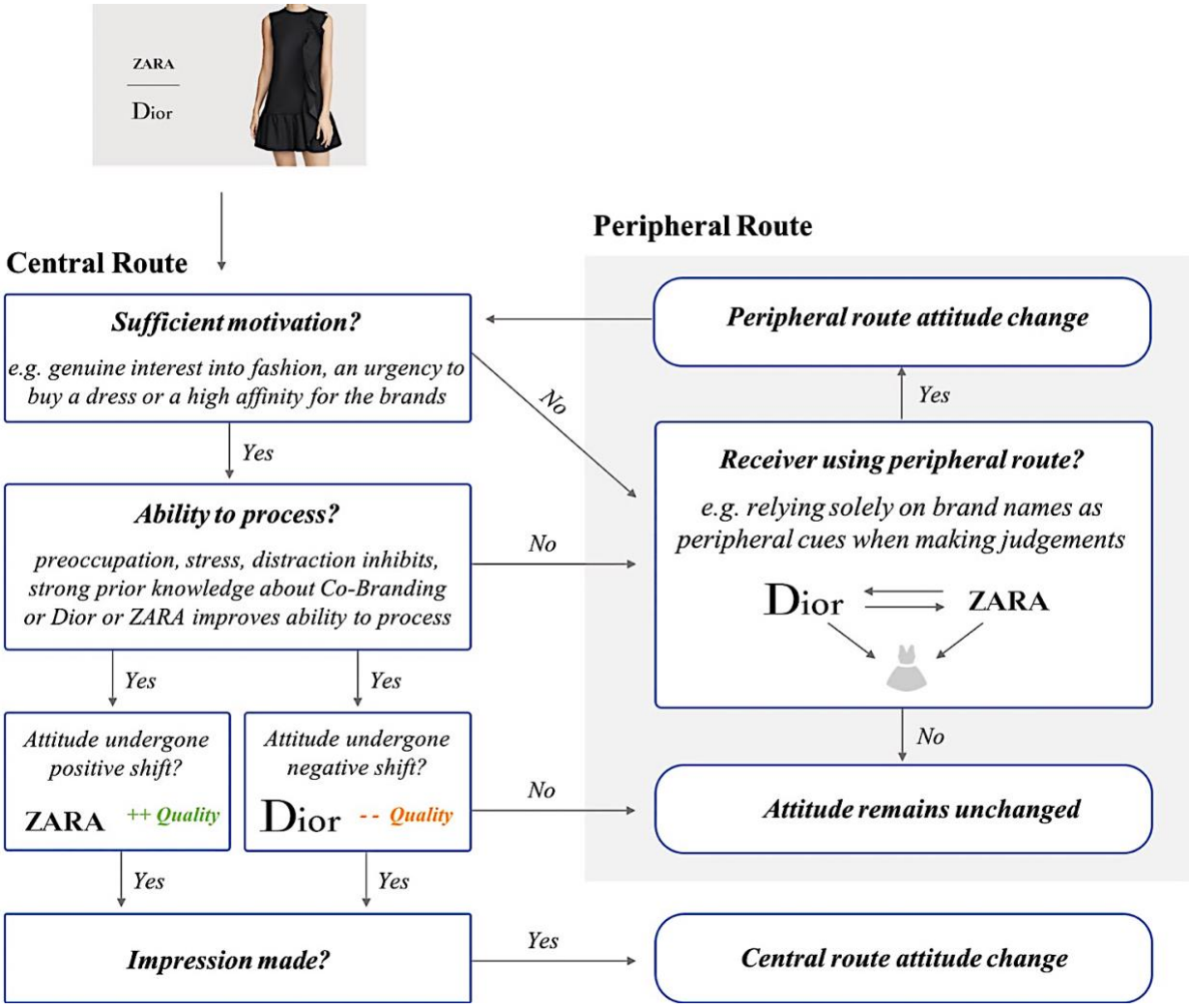

Figure 4: Elaboration Likelihood model in the context of Co-Branding. Own illustration adapted from Petty et al. (1986)

The framework suggests that there are two routes of informational processing when a person encounters some form of communication: the central route and the peripheral route. The central route involves a high level of cognitive elaboration, by considering multiple object-relevant aspects. The resulting attitude change will be relatively enduring, resistant, and is likely to predict future behavior. Under the peripheral route on the other hand, the persuasion results from a general impression or associations with positive and negative cues. These are generally unrelated to the actual quality of the stimulus (Petty & Cacioppo,

1986). Attitudes changed under the peripheral route are less enduring and easier to be altered several times. There are two factors that determine which route of processing an individual uses: motivation and ability. The motivation to process the message may be determined by a person's interest in the subject. Ability includes the availability of cognitive resources, which can be influenced for example by time pressure or distractors. In the context of traditional advertising, distraction is oftentimes high, as ads are likely to be displayed along with multiple other ones (Petty & Cacioppo, 1986).

When relating the elaboration likelihood model to the context of fashion Co-Branding advertisements, a customer can be involved in the specific collaborating brands or the context of fashion, which would facilitate central processing. Hence, the consumer would carefully analyze the displayed clothing item and observe for example the objective material. Hereby, also prior knowledge can improve a receiver's ability to process. If someone for example has great knowledge about the involved Luxury- or Fast Fashion brand, this could result in a continuation of the more deliberate processing and facilitate a more enduring attitude change in terms of the two collaborating brands. However, it is more likely that people view an advertisement in a condition where they are not able to deliberately process information. This would lead a consumer to switch to the peripheral route and evaluate the advertisement by using brand names as peripheral cues. In line with this, a number of studies suggest that endorsement has a greater impact under low involvement (Petty, Cacioppo, & Schumann, 1983; Sengupta, Goodstein, & Boninger, 1997; Veer, Becirovic, & Martin, 2010). Hence, a consumer would assess a product based on the combined impression of the two brand names, whereby attributes from one brand could be transferred to the other. However, this change can only be seen as a temporary one, because it can easily be altered in the future by for example another advertisement.

To conclude, various theories can assist in understanding the spillover effects that occur in the context of Co-Branding and modify attitudes towards the partnering brands. It has therefore been illuminated that pre-existing mental associations with the involved brands play an important role. In order to categorize knowledge and facilitate information processing, people apply strategies such as using informational substitutes, using most available associations or changing the attitude towards an entity that causes disharmony. The attitude change can hence appear asymmetrical, leading to one brand potentially suffering from an attitude change induced by a Co-Branding advertisement. Lastly, it was highlighted that the strength and endurance of an attitude change depends on the deliberateness of information processing.

2.1.2 Co-Branding of Fast Fashion Brands with Luxury Fashion Brands

After the presentation of general theories about Co-Branding, a more specific focus is placed on the phenomenon of Co-Branding between Fast Fashion brands and Luxury Fashion brands. Therefore, Fast Fashion and Luxury Fashion brands will be defined first, followed by a definition of Co-Branding between Fast Fashion and Luxury Fashion brands. Finally, critical factors for successful Co-Branding alliances that have been identified in previous research will be presented.

2.1.2.1 Definition of Fast Fashion Brands and Luxury Fashion Brands

Following Corbellini and Saviolo (2014), the fashion market can be divided broadly into mass, premium and luxury. Within the mass market, Fast Fashion retailers like Zara, Mango and H&M stand out because of their ability to produce a wide range of fashionable items for affordable prices with extremely short production cycles (Corbellini & Saviolo, 2014). The value chain of those brands allows fast interpretations of stylistic trends and distribution to customers, driven by the demand for newness (Barnes & Lea-Greenwood, 2006). According to Walters (2006, p. 258), for Fast Fashion customers the most important value expectations are current fashion designs, immediate availability of trends, variety of choice, low price with matching quality and service that includes interactive store design.

Within the luxury segment on the other hand, high fashion designers such as Gucci, Louis Vuitton, Dior and Chanel stand out. Those brands are characterized by a rich history and highly unique products, created by famous designers. Through premium pricing and exclusive distribution, the products are only available for a niche segment (Corbellini & Saviolo, 2014). Luxury Fashion brands are grounded on the complex concept of luxury, for which numerous definitions exist (Kapferer & Bastien, 2009). According to De Barnier, Falcy, and Valette-Florence (2012), there are mainly three large scale studies that examine the dimensions underlying their perception of a brand's luxury concept: Kapferer (1998), Vigneron and Johnson (1999), and Dubois Laurent and Czellar (2001). Vickers and Renand (2003) condensed the numerous characteristics that were found in these studies and identified three distinct groups of motivations for consuming luxury brands: 1) functional motivations, such as quality; 2) experiential motivations, such as search for pleasure or hedonism and 3) symbolic interaction motivations, such as connection to a group or affirmation of a social status. For Luxury Fashion customers the most important value expectations are high quality, exclusivity, scarcity, premium prices, product craftsmanship and visual symbols associated with the brands and its history (Okonkwo, 2007, pp. 11–12). In a study from 2015 that was executed with respondents from six countries (USA, China, Japan, Brazil, Germany and France), "high quality" was named in five of the six countries as the most important trait (Kapferer &

Bastien, 2009). This trait leads the products to be long-lasting and even increase in value as time goes by due to the affective relationship with the product and its rarity. This differentiates Luxury Fashion products immensely from Fast Fashion brands (Kapferer & Bastien, 2009).

It can be concluded that FF and LF brands differ tremendously in their functions for customers. Nowadays however, customer preferences have become more complex. Luxury Fashion customers increasingly expect luxury brands to modernize, open up the brand and even connect with street wear (Amatulli et al., 2016). Similarly, Fast Fashion customers expect famous designers to be increasingly involved in Fast Fashion creation (Amatulli et al., 2016). The mix and match of Luxury Fashion items with Fast Fashion items has also become more common than ever. All this contributes to blurred lines between the former highly differentiated luxury, premium and mass segments. Consequently, the clearly separated target groups increasingly become one, which leads to the establishment and growing acceptance of Fast Fashion and Luxury Fashion collaborations (Amatulli et al., 2016). The strategy of combining Fast and Luxury Fashion brands is the focus of the conducted experiment in later sections of this thesis (see chapter 3).

2.1.2.2 Definition of Co-Branding between Fast- and Luxury Fashion Brands

The fashion industry has already intensively used Co-Branding to enhance the value of a product, to benefit from positive brand associations of the parent brand and to tap into a different target segment or form a new relationship with its clients (Labbrand, 2011). A rather new phenomenon is the specific collaboration of FF brands with LF brands. Since fashion is categorized as a hedonic product (Kapferer & Bastien, 2009), this form of Co-Branding can be classified as joint venture Co-Branding (Blackett & Board, 1999). In 2.1.1.2, Co-Branding was termed as a special type of brand extension. The research that was presented in 2.1.1, mainly considered category extensions, meaning extensions into different product categories (e.g. Helmig et al., 2008; Simonin & Ruth, 1998). However, most brand extensions in fashion, especially the ones between Luxury and Fast Fashion brands tend to be line extensions, meaning an extension within the same product category (Oeppen & Jamal, 2014). This line extension can be upscale or downscale in relation to the original brand position. In those collaborations, the Fast Fashion brand is likely to be the parent brand, whereas the designer Luxury brand is considered to be the participating one (Labbrand, 2011). From the perspective of the FF brand, it is therefore an upscale extension, because the Fast Fashion brand can benefit from the valuable associations of the Luxury brand. Hence, even though the brands are active in the same product category, they have different brand positions, which has been explained in 2.1.2.1. Following the classification used by Swaminathan et al. (2015), Co-Brands developed by LF and FF brands can therefore be classified as *attribute-complementary Co-Brands.*

2.1.2.3 Effects of Co-Branding on Brand Equity Dimensions of Fast- and Luxury Fashion Brands

Building on general branding theory that was explained in 2.1.1.1, the findings of Co-Branding effects are now sorted according to the four dimensions of Aaker's (1991) brand equity model, which describe consumers' perceptions of brands. The fifth dimension (other proprietary assets) is not considered in this categorization as it is deemed irrelevant for the current analysis. When considering the four remaining dimensions, positive and negative effects emerge for FF brands as well as LF brands, which are summarized in Table 1.

	Positive Effects	Negative Effects
Fast Fashion Brand	***Brand Awareness*** and media attention in Luxury and Fast Fashion market (Oeppen & Jamal, 2014) ***Brand Associations*** that differentiate from other FFB (Shen, Jung, Chow, & Wong, 2014) ***Brand Loyalty*** of Fast Fashion customers (Shen et al., 2017) ***Perceived Quality*** enhanced due to spillover effects from LFB (e.g. Oeppen & Jamal, 2014; Shen et al., 2017)	***Brand Associations*** with other brand could confuse brand image (Wu & Chalip, 2014)
Luxury Fashion Brand	***Brand Awareness*** in mass market (e.g. Mrad et al., 2019; Oeppen & Jamal, 2014) ***Brand Associations*** with youth, newness and surprise (Mrad et al., 2019) ***Brand Loyalty*** of Luxury Fashion and Fast Fashion consumers (Shen et al., 2017)	***Perceived Quality*** reduced, leading to brand dilution (Bruce & Kratz, 2007; Dall'Olmo Riley et al., 2013; Hennigs et al., 2013)

Table 1: Positive and negative effects of Co-Branding for FF and LF brands according to brand equity dimensions

When looking at the provided overview of positive and negative effects, it becomes evident that existing literature mainly highlights the positive implications of Co-Branding for both partners, Luxury and Fast Fashion brands. Hence, it may give the impression that the positive effects predominate due to the quantity of evidence and research focus. However, to critically reflect on the provided table, it is important to consider whether disadvantages caused by the negative effects, especially related to perceived quality for Luxury Fashion brands, outweigh the large number of smaller positive impacts for businesses. Perceived brand quality, which is discussed in detail later on in sections 5.3 and 5.4, is assumed to be a highly influential factor guiding consumers' perceptions of products and their subsequent purchase behavior. Considering *brand awareness*, research suggests that FF brands as well as LF brands can benefit from a

Co-Branding partnership. In their study, analyzing brand managers' perception of Co-Branding alliances, Oeppen and Jamal (2014) identified that while Fast Fashion brands benefit from upscale extension by capitalizing on the Luxury brand's reputation and thus gaining more media attention, Luxury Fashion brands can benefit from downscale extensions as well. They are mainly benefitting from the partner's retail network and thereby gaining exposure in a new market. This is in line with notions by Kapferer and Bastien (2009), who also highlight that it is crucial for Luxury Fashion companies to spread the brand awareness further than one's target group, in order to maintain the social value of the brand. Previous research further supports this suggestion, stating that Fast Fashion collaborations are able to preserve their value by directly gaining access to the other brand's customer base (Besharat, 2010; Leuthesser, Kohli, & Suri, 2003; Mrad et al., 2019).

In terms of *brand associations,* research of Shen et al. (2014) suggests that FF brands can highly benefit from valuable associations with the LF brand. In their study, they explored the perception of Fast Fashion Co-Brands and found that they especially benefit in terms of associations with status, which enhances the image of the brand. However, other research indicates that the endorsement with two brands could also confuse the image of the FF brands in consumers' minds (Wu & Chalip, 2014). In terms of the LF brand associations with the FF brand, Mrad et al. (2019) conducted an explorative study model, using in-depth interviews with UK consumers. They found that LF brands benefit from associations with newness, youth and surprise, which can allow the LF brand to democratize and modernize its brand image.

In terms of *brand loyalty*, Shen et al. (2017) studied Co-Branding partnerships between a FF brand and a LF brand and measured the influence of brand loyalty on the spillover effects between the collaborating brands. They found that both parties can increase customers' brand loyalty, leading to positive effects for FF brands as well as LF brands. However, the two brands should have a good level of brand loyalty before a Co-Branding project.

The most ambivalent findings occur with respect to the fourth dimension, *quality perception.* Research hereby suggests mainly positive effects for FF brands (Oeppen & Jamal, 2014; Shen et al., 2014), however negative effects for LF brands (e.g. Dall'Olmo Riley et al., 2013). As the quality dimension is a central aspect of this research, it will be discussed in more detail in 2.1.3. Hereby, the specific effects that occur for FF and LF brands will be examined separately. Further, section 5.3 and 5.4 provide a discussion of the findings of this study in relation to the presented literature that add to the understanding of perceived quality in the context of Co-Branding.

2.1.2.4 Critical Factors in Fashion Co-Branding

Past research reveals several critical factors in a brand alliance between a Luxury Fashion and a Fast Fashion brand. Mainly three aspects are found to be decisive to enhance the positive effects for both brands and to also minimize the negative effects that are likely to occur for Luxury Fashion Brands. Brand fit, product-uniqueness and popularity of the partnering Luxury brand are discussed in the following as critical factors.

In terms of *brand fit*, Park et al. (1996) tested consumer evaluations of attribute-similar and attribute-complementary Co-Brands in the context of food products and found that attribute-complementary Co-Brands generally lead to more favorable consumer evaluations. However, several other scholars found opposing effects. Simonin and Ruth (1998) as well as Helmig et al. (2008) found that brand image fit has a significant positive impact on evaluations, indicating that the brands should perform rather similar on the same attributes. Ahn, Kim and Forney (2010) examined dimensions determining the fit between brands. The researchers identified the importance of partnering with a brand that has the same usage situation, user identity and perceived brand equity. In the context of fashion Co-Branding, Mrad et al. (2019) argue that the fit between H&M and numerous Luxury Fashion brands the retailer collaborated with was perceived as negative, mainly because of H&M's much lower quality image. This was perceived to be cheapening the image of the Luxury Fashion brand to the extent that consumers stopped classifying them as top Luxury brands.

In terms of *product uniqueness,* several scholars found an influence on fashion Co-Branding alliances. Since clothing selection can be described as a uniqueness-seeking behavior (Snyder & Fromkin, 1980; Workman & Kidd, 2000), Luxury Fashion brands and Fast Fashion brands are aiming for a high degree of uniqueness. However, according to Shen et al. (2014), they tend to focus on different types of uniqueness. Luxury Fashion brands aim to convey an image with which consumers can relate themselves with a certain social group and distinguish themselves from others (Vigneron & Johnson., 2004). In this sense, Luxury Fashion Brands emphasize uniqueness in terms of avoidance of similarity by using famous designers (Shen et al., 2014). Fast Fashion brand consumers on the other hand are driven by the desire for newness that is related to creative choice (Barnes & Lea-Greenwood, 2010). Therefore, Fast Fashion brands produce a wide variety of different apparels that only last a short period of time (Shen et al., 2014). In order to benefit from both strategies and create a highly unique fashion product, Co-Branding alliances should include creative aspects as well as opportunities to avoid similarities with others. Following this argumentation on the one hand, Co-Branded fashion items should only exist for a short period of time as

a limited edition (Ferrero-Regis, 2008), on the other hand they should be created by famous designers, as it is the case for Luxury Fashion brands (Shen et al., 2014).

In terms of the *popularity* of the participating Luxury brand, Shen et al. (2017), found that Fast Fashion brands should cooperate with a well-known Luxury brand, which has a high brand loyalty and consumers thus show a high frequency of repeat purchases. A well-established brand name is a first prerequisite to make positive spillover effects possible. Only if the broad mass of consumers recognizes the brand name of the participating Luxury brand including its symbolic associations, they can be transferred to the Co-Branded product and consequently to the Fast-Fashion brand (Mazodier & Merunka, 2014).

2.1.3 Effects of Co-Branding on Perceived Product and Brand Quality

Effects of Co-Branding on consumer perceptions as well as on the participating brands gained a significant amount of research attention in the past. General positive and negative factors of Co-Branding strategies have already been discussed in 2.1.2.3. The current research puts specific emphasis on the effects of Co-Branding on the perceived product quality as well as the effects on the perceived brand quality, which are both connected to the dimension of perceived quality in Aaker's (1991) brand equity model.

2.1.3.1 Brand Quality Perception

Perceived brand quality (PBQ) has been acknowledged as one of the main components of consumer brand equity, according to scholars like Aaker (1991), who put perceived quality at the core of his brand equity model. PBQ is described as an overall, intangible feeling about a brand that can be understood as a summary construct. However, usually it is closely linked to underlying dimensions that include characteristics of the product to which the brand is attached, such as performance and reliability. Besides being commonly related to product attributes, the superiority of a brand in relation to quality can also be influenced by other more intangible factors like the brand's country of origin, its expertise, credibility and trustworthiness (Vera, 2015).

Effects on Perceived Brand Quality of Fast Fashion Brands

Shen et al. (2014) conducted a study to explore the perception of Fast Fashion brands that have participated in a Co-Branding partnership. They found that Fast Fashion brands can highly benefit from the valuable associations with the Luxury brand, especially in terms of status and quality perception. Connecting this finding to Keller's (2008) Consumer-Based Brand Equity Model and the findings of Washburn, Till and Priluck (2004), the strong associations with the Luxury brand can be transferred to

the Fast Fashion brand's association network. A high brand equity of a partner brand improves perceived quality of the Co-Branded product and generates positive spillover effects.

Oeppen and Jamal (2014) analyzed brand managers' perceptions of the strategy of Co-Branding in the fashion industry, using a qualitative research approach. The interpretation of this qualitative data suggests that Fast Fashion brands can benefit from borrowing credibility or certain associations from another brand. As a consequence, brand quality as an important part of brand equity of the FF brand is enhanced. Further, Mishra, Singh, Fang and Yin (2017) studied multi-brand alliances and found that the number of brand partners significantly affects the perceived quality of the primary brand, which oftentimes is the Fast Fashion brand (Labbrand, 2011). They also observed that for both dual- and multi-brand alliances, the quality level of the secondary brand positively influenced the perceived quality of the primary brand. Summing up those findings, it can be suggested that FF brands can capitalize on the LF brands' quality perception by executing Co-Branding projects and thereby strengthening their brand equity.

Effects on Perceived Brand Quality for Luxury Fashion Brands

While for FF brands the effects on PBQ look rather consistent, for LF brands it seems to be more complicated. This is mainly due to the complex concept of luxury that Luxury Fashion brands are grounded on, leading to conflicting effects. As described in 2.1.2.3., a LF brand can benefit highly from an enhanced customer base, media exposure and from a modernized brand image. However, in terms of the perceived brand quality, research suggests mostly negative effects for LF brands. Bruce and Kratz (2007) argue that it is essential for LF brands to sustain their exclusivity, uniqueness, premium prices and high quality. Co-Branded products are most of the time still exclusive and unique because they are produced in small numbers, however, they are neither sold for a premium price, nor produced with high-quality standards (Oeppen & Jamal, 2014).

Dall'Olmo Riley et al. (2013) analyzed consumers' evaluations of a Luxury and Fast Fashion brand collaboration. They found that the perceived lower quality and price perception of the FF brand could be transferred to the LF brand. This process can lead to brand dilution, which describes the weakening of a brand through its overuse (Dall'Olmo Riley et al., 2013). As LF brands highly rely on their brand value in order to justify high profit margins, brand dilution hereby implies a significant risk. Berthon et al. (2009) highlight that this could diminish the attractiveness of the Luxury brands for their target customers. Hennigs et al. (2013), examined strategic upgrading and downgrading extensions strategies of Luxury Fashion brands by using an implicit measurement method to assess consumer reactions. Their results indicate that when LF brands apply a downgrading strategy, such as participating in a Co-Branding

partnership with a FF brand, there is a high risk of brand damage, especially related to quality perceptions. The research indicates that entering a Co-Branding alliance with a FF brand could lead to negative effects of LF companies' brand equity, specifically when considering the important role of brand quality.

2.1.3.2 Product Quality Perceptions

Quality is assumed to be one of the most important factors responsible for the long-term success of firms and products (Mitra & Golder, 2006). However, it has been established that not quality per se, but consumers' perception of quality drive product preferences. According to Zeithaml (1988), perceived quality can be defined as the consumer's judgment about a product's overall excellence or superiority. Similarly, Aaker (1991) defines perceived quality as "the customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose relative to alternatives". Several researchers have emphasized the difference between objective and perceived quality. The latter represents a higher level of abstraction that some scholars view as an overall evaluation of a product (Olshavsky, 1985). In contrast, objective quality refers to verifiable superiority that can be measured using predetermined standards (Tsiotsou, 2005; Zeithaml, 1988).

Researchers have tried to establish the factors that affect perceived product quality by distinguishing between two types of influential factors: intrinsic and extrinsic cues (Szybillo & Jacoby, 1974). Intrinsic cues concern product-related attributes, like ingredients or materials used, that cannot be manipulated without also changing physical properties of the product (Richardson, Dick, & Jain, 1994). In contrast, extrinsic cues are product-related attributes, such as price, packaging and brand name, that are not part of the physical product. Extant literature suggests that consumers tend to employ intrinsic cues, like actual ingredients, when making quality assessments of a product (Idoko, Ireneus, Nkamnebe, & Okoye, 2013; Richardson et al., 1994). In the context of fashion, this would for example be the product's fabric or its workmanship. However, in many situations, customers are unable to use these cues for their decision making and estimation of product quality. Hence, they often evaluate quality on the basis of extrinsic cues like brand names or logos. These signals serve as an "informational chunk", representing a variety of information about several product attributes such as price, size, performance and manufacturer (Richardson et al., 1994). The role of logos or brand names in making quality assessments of products will be further elaborated in 2.4.

2.2 Benefits and Drawbacks of Traditional Branding Research

The insights found by aforementioned scholars are based on direct and indirect measurement techniques that are common in traditional branding research. Direct approaches thereby relate to survey techniques or focus group discussions that are based on directly asking people about their opinion of brands. These approaches are according to Keller (2008) useful for studying consumers' descriptive thoughts. Through multidimensional scales, specific dimensions can be studied (Keller, 2008). Indirect approaches refer to methods that can be used in situations where consumers are not willing to answer because of e.g. privacy reasons (Aaker, 1991). Hereby, the most common methods are free associations tasks or projective techniques (Aaker, 1991; Keller, 2008). Hence, with traditional techniques researchers are able to access attitudes and behaviors by relying on consumers' observations and self-assessments towards a designated marketing stimuli or task. This kind of information is valuable, however it is also limited (Ariely & Berns, 2010). The problem with these techniques is that they rely on self-reported measurements, which have a high possibility to be misleading because responses could be shaped by the filters of sense and social desirability sought by consumers. It is assumed that especially in the context of Luxury and Fast Fashion, consumers' responses related to product and brand attitudes as well as liking and wanting could be influenced by social desirability bias in an attempt to project a favorable image to others. Additionally, conventional techniques are not able to capture subconscious processes, which have been proven to underlie much of human behavior (Arnould et al., 2005; Dimofte, 2010; Nevid, 2010). Especially in the field of advertising, it is argued by many researchers that unconscious processes play a crucial role (Li et al., 2016; Poels & Dewitte, 2006).

This is where neuroscientific techniques come into play, which are especially useful to measure implicit processes and provide knowledge in situations where consumers are unable to articulate the reasons for their preferences and behavior (Camerer & Yoon, 2015). By measuring, analyzing, and visualizing underlying thinking patterns, a connection can be drawn between what consumers do and why they do it. Over the past decade, the field of consumer neuroscience has made meaningful progress and methods like eye-tracking, galvanic skin response (GSR), electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) have helped to provide more faceted knowledge about consumer behavior (Agarwal & Dutta, 2015; Camerer & Yoon, 2015; Plassmann et al., 2015). Especially neuromarketing, the intersection between neuroscience and marketing, has received considerable attention in the corporate world and an impressive growth of neuromarketing companies over the last two decades can be observed (Plassmann et al., 2012). As Figure 5 shows, the number of research applying neuroscience to marketing has steadily increased after 2000, and this growing interest in the topic has continued until today (Nagel,

2017). Looking at Google Scholar citations, the number of publications reporting "neuromarketing" has almost tripled from 2011 to 2017. Further, global conferences like the Neuromarketing World Forum, which was launched in 2012 and is dedicated entirely to the application of neuroscience to marketing and business, signal the increased interest in the field (NMWF, 2020).

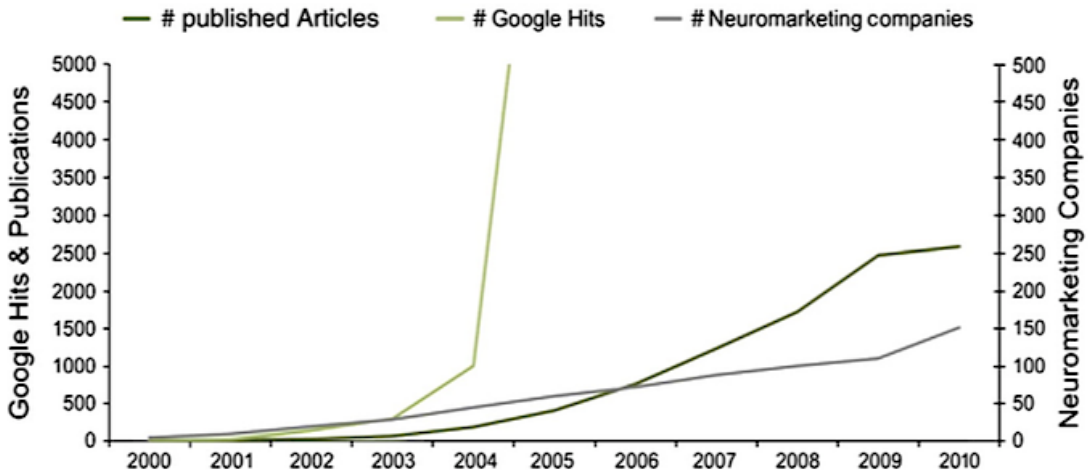

Figure 5: Growth of research applying neuroscience to marketing over time (Plassmann et al., 2012)

Due to the added value neuroscientific techniques can provide for research in branding and marketing, the next section will discuss relevant insights from this field.

2.3 Insights from Cognitive Neuroscience

The neuroscientific view challenges prior assumptions about rational choice and highlights the impact of emotions on reasoning in decision making (Bechara & Damasio, 2005; Shiv & Fedorikhin, 1999; Zaltman, 2003). Modern approaches study biological and physiological reactions to brand messages. The approaches are grounded in the fact that the mind can detect and process subliminal information and thereby guide choice behavior before the person is aware of it (Bagdziunaite, Nassri, Clement, & Ramsøy, 2014). For example, brand names are shown to have a strong influence on consumers' thoughts, feelings and actions (Aaker, 1991; Keller, 2008). Cognitive neuroscience can therefore deliver important insights regarding the effects of Co-Branding. The following section elaborates the neurophysiological value-based model of choice, the general construct of attention as well as concepts of the dual approach system leading to bottom-up and top-down attention in advertising. Further, logo elements as attention generating variables and extant neuroscientific studies in the context of fashion are discussed.

2.3.1 Value-Based Model of Choice

The value-based model of choice, proposed by Plassmann et al. (2012), provides an interdisciplinary framework that functions as a basis to understand the neuropsychological mechanisms of the effects of Co-Brands on product preferences. The model describes how decision making can be explained by a set of steps, in which the brain is encoding signals of value and is evaluating it for every option of action that could be considered (Plassmann et al., 2012; Rangel, Camerer, & Montague, 2008). It divides the preference formation process into four parts: 1) *representation and attention*, 2) *predicted value,* 3) *experienced value,* 4a) *remembered value* and 4b) *learning.* Figure 6 presents the value-based decision model with the four stages, adapted to the decision making situation for a Co-Branded product.

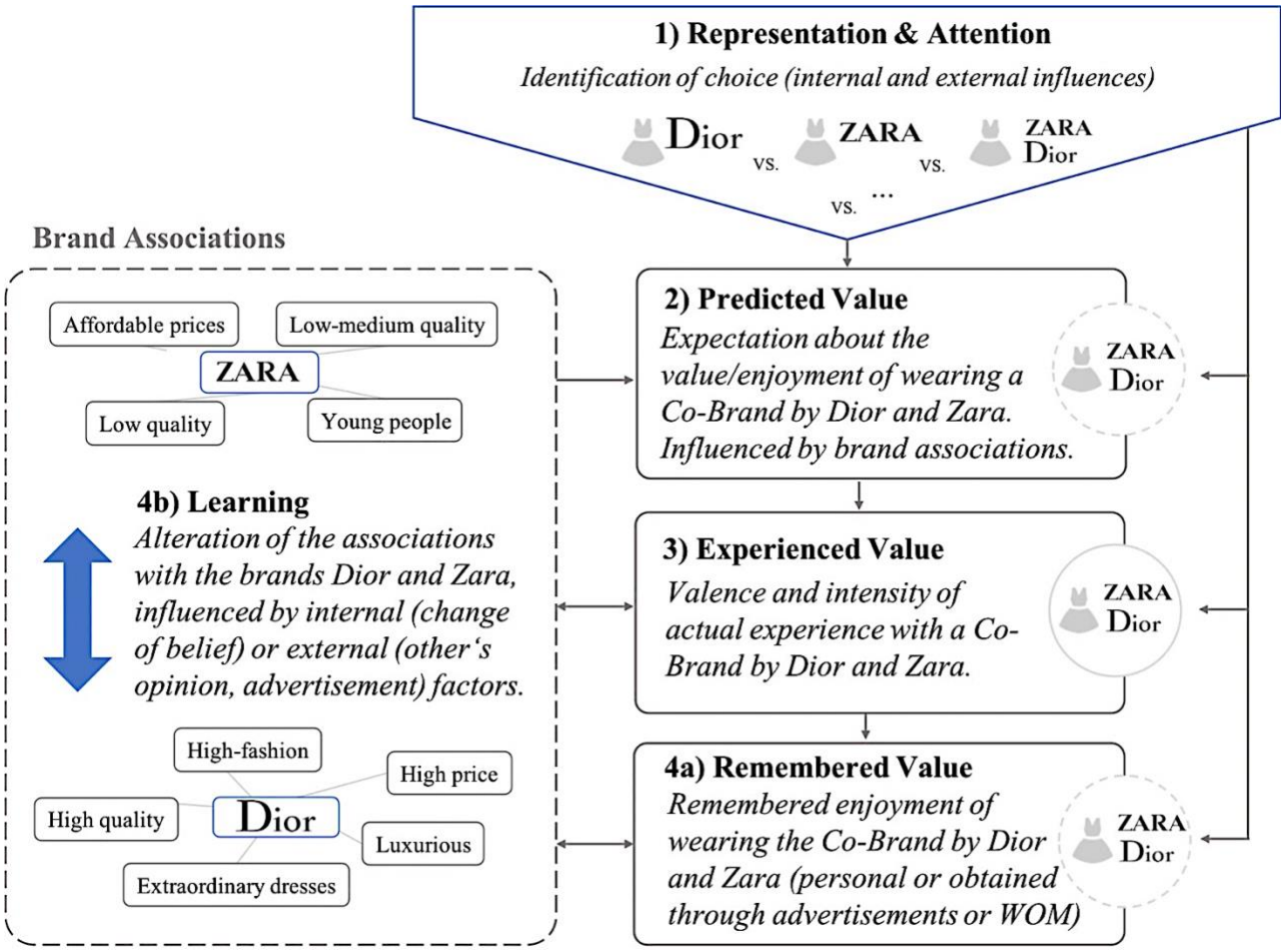

Figure 6: Value-based model of choice for exemplary Co-Brands. Own illustration adapted from Plassmann et al. (2012)

In the first stage of the model, *representation and attention* (1), the consumer is confronted with a number of choices. In the case at hand, this can be for example Fast Fashion brands like Zara, Luxury Fashion brands like Dior or a Co-Brand between Dior and Zara. Here, consumers need to integrate internal states (e.g. thirst level, need) and external states (e.g. location, social context). In the case of fashion brands, the choice could for example depend on the consumer's need for a new dress (internal state) and on the social context of the customer or what the season is (external states). Most of the information in this preliminary stage is processed through the visual system. The key question hereby is what consumers pay attention to (e.g. brands), when they are exposed to a number of choice alternatives.

The second step of the model, *predicted value* (2), represents the consumer's belief about how he would perceive the value of the product, after he has purchased it. The expectations about the consumption experience are hereby based on previous knowledge in brand memory (Plassmann et al., 2012). In this case, the predicted value would for example involve the customer's conviction of how much he would enjoy wearing a Dior or a Zara dress to a certain occasion. It is likely that a Dior dress would enhance a sense of luxuriousness and elegance that could be expected to be more pleasurable than the enjoyment derived from wearing a Zara dress. When looking at the value prediction of a Co-Branded fashion product, two completely different brand memories need to be combined. Hence, predicting the value of a Co-Branded product could lead to a more complicated evaluation process activating longer visual processing (Stewart, Pickering, & Sturt, 2004).

The third step describes the phase of the *experienced value* (3), which is based on the pleasure derived from consuming a brand. According to Kahneman, Wakker and Sarin (1997) this is the true value, which should matter the most for value-based decision making. Plassmann et al. (2012) distinguish between a) valence or the pleasantness and b) intensity of the consumption experience. A Dior or Zara dress might be experienced in totally different levels of valence and intensity. While a Dior dress could satisfy the customer with high quality material of the dress and social rewards which could lead to a high intensity, wearing a Zara dress could lead to a less pleasant experience which is lower in its intensity. However, in the case of the latter, high valence could occur from making a good deal and thereby gaining money as a secondary reward (e.g. Breiter, Aharon, Kahneman, Dale, & Shizgal, 2001; Knutson, Rick, Wimmer, Prelec, & Loewenstein, 2007). Wearing a Co-Branded product could consequently trigger both of these values. On the one hand, the customer could benefit from the associations with the Dior brand and thereby gain social rewards, on the other hand, he can benefit from the Zara brand by getting the clothing item for a lower price, which could lead to an intensive consumption experience.

In the value-based model of choice, great meaning is assigned to the interaction between the predicted and the experienced value, which is described as the motivational value or incentive salience of an option. To understand how value is processed in the consumer's brain, researchers have hereby distinguished between "wanting" and "liking" responses to stimuli (e.g. Berridge & Kringelbach, 2008; Berridge, 2007; Berridge, 2009). Those concepts will be further elaborated in section 2.3.3.

Finally, the fourth step, describes how *remembered value and learning* (4) influence the choice for a specific product. It "…refers to how different brand associations are encoded, consolidated, and retrieved in consumer's memory" and thereby predict choice behavior (Plassmann et al., 2012, p. 10). These experience memories can be personal, but also belonging to other people and obtained by the consumer through an advertisement or word-of-mouth (WOM). A part of these processes can also happen on an unconscious level. The remembered value hence consists of explicit as well as implicit memory (Plassmann et al., 2012). For example, a woman who decides to buy a Co-Branded dress could explicitly remember how a famous actress has worn a similarly beautiful Dior dress to a gala, however, her choice could also be implicitly influenced by a Zara advertisement she has seen prior to the purchase.

The model further highlights the dynamic nature of memories, as they can be constantly altered by new experiences or advertisements (Plassmann et al., 2012). Therefore, the perception of an advertisement of a new Co-Branded collection by Dior and Zara could lead to a *learning process* (4b), which could change the previously defined associations of both brands. The current study mainly focuses on the first two steps of the model, in which visual attention to the products and brands plays an important role. However, the learning process is considered as highly relevant too, as the model demonstrates that a Co-Branded advertisement is able to change the associations of the involved brands and thereby alter the predicted and actual value of future consumption experiences.

2.3.2 The Conscious and Non-Conscious Effects on Human Decision Making

Neuroscientific approaches to marketing theory especially highlight the distinction between conscious and unconscious processes in human decision making (Plassmann et al., 2012). In this section, the most influential theories are presented, starting with the general concept of attention, followed by the dual approach system introduced by Kahneman (2002) and the explanation of bottom-up and top-down processes based on literature by Pieters and Wedel (2004). Building on these theories, specific emphasis is placed on the role of brand logos in the context of bottom-up and top-down processes.

2.3.2.1 The Concept of Attention and its Role in Advertising

Human attention has been defined back in 1890 by researcher William James, who wrote one of the most famous quotes about the construct: "Everyone knows what attention is" (p. 403). He describes it as "taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought." (p. 403). In line with James (1890), Plassmann and his colleagues (2012) define attention as "the mechanism responsible for selecting the information that gains preferential status above other available information" (p. 21). It is generally acknowledged that attention and consciousness are closely interlinked concepts (Boxtel, Tsuchiya, & Koch, 2010a). When someone pays attention to an object, he or she becomes conscious of its attributes. When the attention shifts away, the object is likely to fade from the observer's consciousness. Due to this tight relationship, many scholars propose that the two processes are inseparably entangled, if not identical (e.g. De Brigard & Prinz, 2010; Mole, 2008; Posner, 1994). However, some researchers believe that attention and consciousness are distinct phenomena with neural mechanisms that can be disassociated. By doing experimentation using neurophysiological methods like EEG and fMRI, scholars have been able to successfully prove that the two concepts can be separated from one another (e.g. Block, 2005; Koch & Tsuchiya, 2007; Woodman & Luck, 2003) and can even be observed showing opposing effects (Boxtel, Tsuchiya, & Koch, 2010b). Hence, it can be assumed that attention can work on a conscious as well as an unconscious level.

In the context of advertising, attention has become one of the most vital success factors of marketing efforts in today's world. Due to the large number of different communication channels, consumers are faced with an overabundance of information and see hundreds or even thousands of advertising messages in a single day (Milosavljevic & Cerf, 2008). However, not all of this information can be processed by the human brain because of its limited capacity, also called the attentional bottleneck. The importance of consumer attention is reflected in its prominence in commonly-used decision making models like the AIDA model (Vakratsas & Ambler, 1999), which positions attention as the first step consumers go through in the buying process (Attention → Interest → Desire → Action). Likewise, alongside representation, attention is positioned as the first step in the value-based model developed by Plassmann et al. (2012), which was discussed in the prior section.

In line with Miloslavjevic & Cerf (2008), scholars Hoyer, MacInnes & Pieters (2012) describe attention as being *limited* by the attentional bottleneck. The researchers add two more characteristics to the concept, claiming that attention is also *selective* and that it can be *divided*. As attention is limited, consumers need to select what to pay attention to, while being surrounded by a potentially overwhelming number of stimuli. Further, consumers are able to divide their attentional resources by allocating some attention to

one task and some to another. However, they can also become distracted by one stimuli that draws the attention from another, e.g. if one advertisement contains elements that are more distracting than a different advertisement the consumer is exposed to at the same time.

Since James defined attention back in 1890, many attempts have been made to conceptualize the construct more precisely (Lindsay, 2020). One of these attempts has been made by Pieters & Wedel (2004), who suggest that attention is a much more complex phenomenon, which can be divided into two different determinants, namely bottom-up and top-down control. Plassmann et al. (2012) argue that bottom-up and top-down processes as defined by Pieters & Wedel (2004) are two conceptual components fundamental to attention. Further, Kahneman (2002) distinguished between two modes of thinking, that allocate our attention to different mental activities. The influential concepts of Kahneman's (2002) System 1 and 2 thinking as well as Pieters & Wedel (2004) bottom-up and top-down processes will be discussed in the following sections.

2.3.2.2 The Dual Approach System

Kahneman (2002) explored the psychology of intuitive beliefs and choices as well as their bounded rationality. A major contribution of his work is the introduction of a two-system view, which differentiates between two modes of cognitive processing for general beliefs and choice scenarios. The two systems are referred to as intuition and reasoning or simply *System 1* and *System 2*. The operations of *System 1* are "fast, automatic, effortless and associative, and difficult to control or modify" (Kahneman, 2002, p. 450). Often this level of unconsciousness affects consumers' choices, even though they are not aware of it (Simonson, 2005).

In contrast, the operations of *System 2* are described as effortful, slow, deliberately controlled, and potentially rule-governed. System 2 thereby relates to the conscious part of the mind, which can be described as processes in the brain that come along with awareness of certain aspects or relevant contexts (Dijksterhuis & Aarts, 2010). Whereas *System 2* is involved in all judgements, *System 1* functions intuitively and generates first impressions based on an individual's immediate perception of its environment (Kahneman, 2002).

2.3.2.3 Bottom-Up and Top-Down Processes in Advertisements

In relation to Kahneman's (2002) two models of processing, Pieters and Wedel (2004) propose a conceptual model of attention capture with regards to advertisements. It is assumed that good advertisements not only capture initial attention but, more importantly, retain attention. Hereby, the model distinguishes between bottom-up and top-down mechanisms that attract and guide visual attention (Pieters & Wedel, 2004).

When a person is looking at an advertisement or product, attention is drawn by signs and visual elements that help to identify and conceptualize the advertisement or product (Ngo, Piqueras-Fiszman, & Spence, 2012; Opperud, 2004). Those signs can be related to the proposed bottom-up and top down mechanisms. *Bottom-up features* can raise the perceptual salience of a stimulus by increasing its local contrast to other objects (e.g. Gidlöf, Anikin, Lingonblad, & Wallin, 2017; Itti, Koch, & Niebur, 1998; Pieters & Wedel, 2007). Salient stimuli capture attention more rapidly and automatically, even if the consumer is not actively searching for it (Pieters & Wedel, 2007). Therefore, decision-making based on bottom-up features can be viewed as equivalent to System 1 processes. In contrast, *top-down influences* such as brand familiarity or brand perception are anchored to consumers' minds (Gidlöf et al., 2017; Pieters & Warlop, 1999). These factors actively and voluntarily direct the attention process, which is in line with the more deliberate cognitive operations of System 2. Based on this model, both factors jointly guide a person's attention (Gidlöf et al., 2017).

In this context, Posner et al. (1980) distinguish between *orientation attention and discover attention*. The first term refers to a subconscious and unselected search process in which different stimuli are processed simultaneously and as such, it compromises bottom-up features such as color-contrast and shape (Posner et al., 1980). In contrast, the latter term relates to more slow and serial processing, including top-down product features such as semantically loaded imagery and textual elements (Posner et al., 1980). Since people cannot easily distinguish between the two processes in real world situations (Duncan & Humphreys, 1989), it is likely that they are both activated when viewing an advertisement (Boxtel et al., 2010a; Clement, Kristensen, & Grønhaug, 2013). They can therefore not be completely separated from each other.

2.3.3 Liking and Wanting as Part of the Human Reward System

Wanting and liking, which are responsible for guiding reward directed behavior, attention and decision making, naturally act in tandem (Anselme & Robinson, 2015). Humans tend to want what they like, and like what they want. However, despite operating as a unified process, research has established that those two concepts come from distinct brain mechanisms and can hence be disassociated. In support of this finding, liking without wanting and wanting without liking has been observed in various situations by researchers, which is why these two concepts are examined distinct from one another. An example of wanting without liking is when consumers are exposed to advertisements, which may lead to peaks of wanting that can induce strong urges to consume the shown product (Anselme & Robinson, 2015). Advertisements can increase how much consumer goods are wanted, while the liking of the product often remains unchanged. Purchasing a good without actually liking it sufficiently to make the purchase under normal circumstances is likely to lead to feelings of regret. In this situation, liking and wanting for a product can be driven in opposite directions.

The phenomenon of wanting without liking has similarly been described in reports of drug addiction, gambling disorder and food addiction, as researched by scholars Robinson et al. (2015). Taking the example of drug addiction, Robinson et al. (2015) explain how repeated drug use can cause the dopamine system of the brain, that is responsible for the generation of wanting to experience *incentive sensitization,* which is defined as an increase in the sensitivity of the neural circuits responsible for wanting of a drug. This leads to symptoms of drug addiction while the pleasure produced by the drug is not necessarily tied to liking. Hence it is common that a progressive increase in drug wanting and consumption occurs, without any paralleled increase in drug liking, sometimes even despite liking the drug less. Similarly, authors Litt, Khan and Shiv (2009) have tested for conditions under which wanting and liking are not simply affected individually, but are driven in opposite directions by experiences of failure to obtain a certain reward. The authors explain that life presents numerous situations in which people experience "jilting" by being denied desired targets or outcomes. A simple example is the romantic pursuit scenario when one is "playing hard to get" while the other person is experiencing frustrating denial and failure. With the help of 233 participants, the authors show through two simple experiments which included the opportunity to win prices, that being jilted in pursuing desired targets can simultaneously increase motivation to pursue those targets and at the same time decrease their actual appeal. Therefore, surprisingly, people may come to loathe what they lust after, and want more what they like less.

To better understand the processes of liking and wanting, it is important to note that most human behavior is assumed to be primarily under conscious control, stemming from goal-directedness and pleasure seeking (Anselme & Robinson, 2015). However, wanting and liking have been found to not completely work at a conscious level. Researchers like Anselme and Robinson (2015) argue that conscious wanting and liking can be disassociated from unconscious wanting and liking, which is proven by existing studies that provide evidence of the powerful role played by unconscious forms of wanting and liking (Fischman & Foltin, 1992; Winkielman, Berridge, & Wilbarger, 2005). The two concepts (un)conscious liking and wanting will be looked at in more detail in the following.

(Un)conscious Liking

Liking is a hedonic reaction and the core process that underlies sensory pleasure of reward (Berridge, 2009). It is mediated by so-called hedonic hotspots in specific brain areas such as the nucleus accumbens and the ventral pallidum (Anselme & Robinson, 2015). Hedonic hotspots have also been discovered in the orbitofrontal and insular cortices. Berridge & Winkielman (2003) further mention the lateral hypothalamus and the brainstem as areas responsible for creating reward-related responses.

Traditionally, researchers like James (1884) have posed that emotions such as liking (feelings of pleasure) are experienced in a conscious way and belong to the “aesthetic sphere of the mind, its pleasure and pains, and its emotions" (p. 188). Cognitive theorists have continued to focus primarily on conscious experience as emotion’s defining feature. However, a new perspective on emotion has been presented by researchers like Kihlstrom (1999) as well as Berridge & Winkielman (2003), who provide theoretical and empirical arguments that emotions such as liking can also exist and be influenced unconsciously. Kihlstrom (1999) has suggested the terms “emotional unconscious" and “implicit emotion” to summarize a variety of psychological phenomena where affective processes occur in the absence of conscious awareness.

Among the strongest evidence of unconscious liking are studies conducted by Robert Zajonc and his colleagues, who developed the mere-exposure effect (Kunst-Wilson & Zajonc, 1980; Monahan, Murphy, & Zajonc, 2000; Zajonc, 1968). In all of these studies, the authors found that the repeated presentation of a stimuli increased the liking for it, even when participants are completely unaware of the repetition. This effect has been demonstrated across cultures, species and diverse stimulus domains and supports the “emotional unconscious” hypothesis by Kihlstrom (1999). Similarly, Murphy and Zajonc (1993) have shown that preference ratings can also be influenced by unconsciously presented affective stimuli, such as smiley or angry faces. Researchers argue that the viewing and processing advertisements is mainly done on an unconscious level (Li et al., 2016; Poels & Dewitte, 2006), which is why unconscious affective

responses such as liking towards Co-Branding advertisements by consumers are relevant to take into consideration for the research at hand.

(Un)conscious Wanting

Wanting is a form of motivation that denotes the attractiveness of a stimulus leading humans to approach and consume a reward (Berridge & Robinson, 2016). It is mediated by large and robust neural systems involving midbrain dopamine projections to regions such as the nucleus accumbens and parts of the striatum. The intensity of the triggered wanting depends on the stimulus' reward association and on the current state of dopamine-related brain systems in an individual. This interaction allows peaks of wanting to be intensified by brain states that increase dopamine reactivity, such as stress, excitement, appetite or intoxication. State-dependent amplification of wanting can explain why individuals are especially vulnerable to relapse to an addiction or other related disorders in times of stress or intoxication.

As it is the case with liking, wanting can be experienced in a conscious way, when someone is being fully aware of the cognitive desire towards a stimulus and has a declarative goal in mind (Anselme & Robinson, 2015). However, it can also occur unconsciously when it is less connected to cognitive goals. Unconscious wanting, or *incentive salience*, is often triggered by reward cues or vivid imagery of a reward, such as images of unique and fashionable clothing in advertisements that trigger an urge for consumption (Berridge & Robinson, 2016).

Typically, incentive salience and conscious wanting go together and incentive salience can increase the urgency of conscious feelings of desire (Berridge & Robinson, 2016). However, it has been found that the two forms of wanting can dissociate. For example, incentive salience can either be experienced in opposition to a conscious desire or even unconsciously in absence of any conscious desire. It is commonly observed that nonconscious wants are triggered by subliminal stimuli, even though a person is unable to report a change in subjective feelings while increases in motivation are revealed in their behavior. This could also apply to exposure towards fashion collaboration advertisements, where an added Luxury Fashion logo that represents exclusiveness and high quality may subliminally increase motivation or wanting for the shown product, even when the consumer exposed to the advertisement is unaware of a change in their subjective feelings.

2.3.4 Neuroscientific Studies in the Fashion Context

Several studies using neuroscientific methods in the fashion context exist, specialized on a diverse set of research areas in order to better understand consumers' shopping behavior. However, to the researchers' best knowledge, no studies have been conducted using neuroscience in an attempt to explore the effects logos in fashion Co-Branding advertisements on consumer perceptions and behavior.

Amatulli et al. (2016) studied the so-called "Mix-and-Match" fashion trend and the recognition of luxury brands by consumers using eye-tracking technology. The Mix-and-Match fashion trend is described by the authors as the phenomenon of consumers buying and wearing Luxury Fashion products and Fast Fashion products together, rather than sticking to only one of these fashion categories. According to Amatulli and his colleagues, one reason for this is that consumers want to express their personal style but at the same time, economic factors are likely to also play a role since many consumers cannot afford to fully dress in luxury clothing. Through their study, the researchers tried to determine what happens to the luxury brands' recognition when they are paired with Fast Fashion brands, and especially to find out whether or not luxury brands are negatively affected by this pairing. Drawing on contrast effect theory (Schwarz & Bless, 1992), Amatulli et al. (2016) conducted an eye-tracking experiment to observe whether consumers better recognize a Luxury Fashion brand when combined with a Fast Fashion brand. The research included a pre-screening of participants and an eye-tracking study, which all took place in Italy with the help of 40 Italian university students as participants. Because the authors aimed to explore the relevance of different areas of interest on brand recognition, most gaze analyses were based on the fixation frequency. Their findings suggest that consumer recognition of Luxury Fashion brands increases when pairing them with Fast Fashion items. It was also found that Luxury Fashion brands are mainly recognized through accessories. Hence, the authors conclude Fast Fashion brands do not represent a threat to luxury brands, they actually represent a boost. Luxury brands are significantly more recognizable when paired with Fast Fashion products, compared to when they are presented alone.

Similar to Amatulli et al. (2016), Ho et al. (2012) conducted research in the fashion segment using eye-tracking technology. The author ran a pilot study in Taiwan using eye-trackers to record ten female participants' eye movements while looking at pictures of 20 randomly displayed handbags. The images were collected from online stores' websites and only showed a handbag with a plain background and no other distractions. For each picture, six Areas of Interest were defined for the handbag. The aim of the study was to find out which areas are most interesting for consumers and gain the most visual attention. The eye-trackers measured the number and duration of fixations for different AOIs as well as the gaze sequence in an attempt to be able to predict consumers' gaze behavior towards handbags. Results of the

study can be used within fashion design education in order to enhance students' ability to design effectively, i.e. students can focus on design details in the regions where the handbag tends to get the most visual attention by female consumers.

Another study conducted by authors Touchette and Lee (2017) tried to investigate the neural mechanisms of apparel product attractiveness and compared consumers' brain responses to their self-reported responses. The study was based on Davidson's frontal asymmetry theory (1992), which is one of the most notable neurological theories regarding the relationship between hemispheric lateralization and emotion in the human brain. The theory posits that the left frontal area of the brain is involved in the experience of positive emotions (e.g. joy, interest, happiness), leading to approach motivations, and the right frontal area is associated with the experience of negative emotions (e.g. fear, sadness, disgust), which facilitates withdrawal. Based on this theory, Touchette and Lee (2017) explored whether hemispheric asymmetry actually exists when consumers view fashion products with different levels of attractiveness. 34 American college students took part in the experiment using the neuroscientific method Electroencephalography (EEG), which records the electrical activity of the brain (Schaul, 1998). Measurements were made by recording the electrical activity of the left and right frontal areas of the brain while respondents were viewing tops from different fashion online retailers. No other information such as price or brand name was provided. Using a 10-point Likert-scale, with 1 being very unattractive and 10 being very attractive, participants had to rate the attractiveness of the presented tops. In support of Davidson's theory (1992), the researchers found that a significant difference of frontal asymmetry exists between attractive and unattractive fashion products (Touchette & Lee, 2017). The findings of this study propose that the frontal asymmetry score can be used as an alternative way to measure consumers' unconscious responses to apparel product attractiveness. The authors found no significant difference between the frontal asymmetry scores and the self-assessed responses of participants, however they note that the additional presence of price or brand information (such as logos) on the products may make a difference between consumers' initial unconscious and conscious responses.

In the context of Luxury Fashion, two interesting studies have been undertaken also using EEG as their research method. The first one by Zhang et al. (2019) focuses again on handbags for women. The researchers' aim was to explore consumers' implicit motivations for purchasing luxury brands. For that reason, twenty female graduate and undergraduate participants from China were recruited for the study. Respondents were presented with images of different Luxury Fashion handbags in front of a white background while their brain activity was recorded using EEG. The handbags either showed a logo or no logo and were either a genuine design or a counterfeit, representing opposing levels of brand prominence

and brand authenticity. According to the functional theories of attitudes, the different social goals that consumers want to achieve through luxury consumption allow consumers to express themselves (a value-expressive function) and/or to present themselves to others (a social-adjustive function). The authors argue that consumers' value-expressive functions can be modulated by logo prominence and their social-adjustive functions can be modulated by brand authenticity. After looking at the different handbags, participants were asked for their purchase intention using a five-point Likert scale. Considering the moral consequences associated with counterfeit luxury consumption and the risk that participants may not report their true thoughts and preferences, EEG was used in addition to the self-reported purchase intentions. Results of the experiment provide evidence that consumers' preferences for luxury brands are based on the satisfaction of their social goals. The two different social goals coexist and perform as a compensation with each other, hence dissatisfaction of one goal promotes consumers' expectation for the satisfaction of another social goal. If this expectation is violated, greater emotional conflict may be induced and the motivation and purchase intention for luxury items decreased. As a consequence, Zhang et al. (2019) advise luxury brand managers and marketers to pay attention to both self-expression and self-presentation social goals of consumers when they are designing, advertising and selling their luxury goods. If one of the social goals cannot be satisfied, efforts should be made to serve the other one.

The second study in the Luxury Fashion segment is by Balconi, Sebastiani and Angioletti (2019) and was aimed at exploring consumers' intentions towards sustainability within the Luxury Fashion industry. For that matter, 16 Italian luxury consumers were divided into two groups according to their sensitivity towards sustainability issues. Participants were asked to first look at ten different stimuli depicting sustainability issues in a lab setting and afterwards to interact with a salesperson inside a real Luxury Fashion store while their cortical activity was recorded using EEG. The technique of EEG was selected by the authors in order to gain quick and detailed insights into consumers' implicit brain activity. Changes in the cortical activity of the subjects in each group were measured while participants were presented with sustainability themes implicitly (sustainable images presentation in lab) and explicitly (sustainability policy of the brand explained by a salesperson). Findings of this study can be used by marketers interested in setting up strategies for effectively communicating their sustainability efforts and goals to customers. Results of the research show that sustainability-oriented pictures had a strong negative emotional impact, implying high engagement among luxury participants in both groups and negative arousal when being exposed to these sensitive topics. When talking with the salesperson about the sustainability policy of the brand, no increased cortical activity was found for the group with higher sensitivity towards sustainability and hence no differences were found between participants of the two groups.

Lastly, Lindström et al. (2016) published findings of their eye-tracking study which served as further guidance for the design of stimulus material used in the experiment conducted for this thesis. The authors utilized eye-tracking data to explore whether the presence of a mannequin head changes shopping behavior in physical and online stores. Two studies were run in an online shop and a physical store environment with the help of 252 female participants, testing their likelihood and willingness to purchase an outfit. The eye-tracking experiment was focused on measuring the test persons' fixation duration for specific mannequin AOIs that were defined beforehand. Results of the first study suggest that in fashion stores, the presence of a humanized head enhances purchase intention for the clothing displayed on that mannequin. However, in online stores, dressed mannequins with and without humanized heads are equally effective. In the second study, the physical store results are confirmed for customers with less fashion knowledge, but among customers with less fashion knowledge the results reverse, such that mannequins without humanized heads enhance purchase intentions.

2.4 Logos as Cues for Consumers in Co-Branding Advertisements

In order to answer the research question of this paper, the specific role of logos in fashion Co-Branding needs to be emphasized. There are different types of logos, although in Luxury Fashion branding mostly the textual type is used, i.e. the brand's name represents the logo at the same time (Danesi, 2007). Therefore brand name and logos can be treated as equivalent in this context. To gain an understanding of how logo elements influence consumer decision making in Co-Branded advertisements, findings from both, traditional as well as neuroscientific studies can provide valuable input.

Insights from Traditional Research

According to Garner (1974), logos have both a *visual structure* and a *meaning structure*. The visual structure represents the informational properties of a logo, such as color or shape, which remain the same regardless of who interprets the logo. The meaning structure, on the other hand, represents the meanings associated with the logo, which can be formed through individual experiences with the particular brand. As the meaning structure of Luxury Fashion brand logos and Fast Fashion brand logos are likely to differ tremendously (Corbellini & Saviolo, 2014) this aspect can be considered as especially important with regard to the research question of the paper.

According to cue utilization theory (Olson, 1978) consumers rely on multiple visual cues when making product-related judgements in order to reduce uncertainty in purchase decisions (Rao & Monroe, 1988). Following Erdem and Swait (1998), brand logos can function as such cues because they represent images that consumers have formed based on information they have obtained at each point of contact with the brand. For Luxury Fashion companies like Dior or Chanel, logos are extremely important as they serve as a critical tool for creating a brand's image, social status and high-quality perception that allows brands to charge a premium price (Vigneron & Johnson., 2004). Power and Hauge (2008) even define this development of meaning as the establishment of virtual monopolies. Following De Chernatony (1993), brand names can serve as signals for both functional and symbolic value. While the role of brand logos for both types of value has received attention in previous research, the focus has been mainly on logos as cue for functional value, especially product quality.

Richardson et al. (1994) analyzed the influence of a private label vs. national label on consumers' product evaluations in a grocery store environment. The researchers base their study on cue utilization theory and found that consumers prefer national brands over private label ones, due to the higher amount of meaning attached to the national brands in terms of credibility and product quality perception.

Jacoby et al. (1971) analyzed the influence of price and brand name on the product evaluations of beverages. They found that the brand image attached to the brand name had a strong influence on the perception of quality which exceeded the influence of price. This effect was particularly evident in the case of strong positive images. Studies by Berning and Jacoby (1974) as well as Gardner (1971) support these findings and show that the brand name of a product takes precedence over other cues of information in a consumers' decision making process. Likewise, Rao and Monroe (1989) conducted a meta-analysis combining the results of 36 studies that had examined the influence of price, brand name and store name on customers' evaluation of product quality in relation to consumer goods. They found that the relationships between price and perceived quality as well as between brand name and perceived quality were positive and statistically significant across the investigated studies. In this context, Biswas and Sherrell (1993) examined the influence of product knowledge and brand image via the brand name on consumers' price estimates in electronic products. The results of the study show that the degree of dependence on brand names for making price estimations is moderated by the consumers' level of product knowledge. Consumers with low product knowledge relied heavier on well-known brand names when making a decision.

A closer link to the context of Co-Branding can be established through a study by Rao and Ruekert (1994) who investigated the impact of products branded with two logos. In line with previous studies, they found evidence that brand names provide consumers important information about the expected quality of the product. Two brand names would thereby signal a higher quality than one, especially when the actual product quality is not easy to determine. These findings indicate that Co-Branding is beneficial to increase the perceived quality of a product. Moreover, previous research indicates that brand logos are also able to guide product preference. Patil (2017) analyzed sixteen consumer goods brands from different segments and found a significant relationship between brand awareness and brand preference for all sixteen brands. A familiar brand would thereby reduce risk and thus leads to preference. Mitra and Golder (2006) thereby emphasize that preference occurs due to the higher perceived quality of brands and products, which is in line with the theories on brand equity as explained earlier (e.g. Aaker, 1991; Keller, 1993). In their study, the authors examined the influence of brand names on the objective as well as perceived quality of products. They found that for an established brand name, the decrease in quality is not significantly harming product preference, because the products are still perceived as of higher quality than they actually are.

A more recent study by Rahman, Fung, Chen and Gao (2017) analyzed the role of product-evaluative cues in the context of fashion products in a cross-national study. In contrast to the above findings, the authors found that when it comes to product preference, consumers pay more attention to the fit and style of the garment than to the brand name. In this context, Round and Roper (2015) highlight the time component of the importance of brand names. In their study, the researchers found that the importance of a brand name element for an established product decreases over time. 87 percent of the 100 participants reported that they would attach little or no value to the brand name of an established branded product. However, Grasby et al. (2019) analyzed the brand logos in connection with the introduction of new products by investigating 98 brand extensions, and analyzing purchasing data of approximately 60.000 US households. They found empirical evidence that the familiarity of a brand name facilitates the purchase of the brand's products.

Summarizing the findings from traditional branding literature, brand names or logos serve as an important source for equity, providing cues for product quality and thus guiding product preference. Although the importance of brand names for established products has been questioned, they seem to be of great importance for new products.

Insights from Neuroscience

Neuroscientific studies can provide a further layer of understanding of the role of logos in advertising. According to Underwood and Klein (2002), logo elements or brand names are a potential means of addressing bottom-up as well as top-down processes. As explained in 2.3.2.2, bottom-up processes refer to automatic processes which are activated due to the visual aspect or the saliency of a stimulus, while top-down processes are anchored in consumers' minds (Pieters & Wedel, 2007).

Miceli, Scopelliti, Raimondo and Donato (2014) link these processes to the previously presented distinction between the visual structure and the meaning structure of logos by Garner (1974). The visual structure, such as the color or shape of a logo is thereby likely to trigger bottom-up processes, while the meaning structure is likely to activate top-down processes. Miceli et al. (2014) argue that on the one hand, individuals are able to detect a stimulus within 100 milliseconds (Oliva, 2005) and perceive visual elements within just a few eye-movements (Pieters & Wedel, 2008), which would not require conscious processing (Lee, 2002). On the other hand, the elaboration of meaning would require a more conscious elaboration, as it may demand retrieving knowledge associations from memory and categorizing the specific stimulus (Hamann, 1990). This would consequently require more time to process the stimulus (Lee, 2002).

Clement et al. (2013) investigated bottom-up attention in the context of package design features in the in-store search process in the jam category, using eye-tracking methodology. The researchers found that design features such as shape and contrast, are most influential in the initial search phase. Turatto and Galfano (2000) emphasize the additional importance of color and luminance as factors that capture initial visual attention.

An important factor highlighted in neuroscientific literature is the role of logo *placement*. In this context, Sundar and Noseworthy (2014) examined the placement of logos on packaging design, specifically investigating powerful and less powerful brands. They found that consumers prefer powerful brands to be placed high on the packaging, while they prefer less powerful brands to be placed low, as they would unconsciously associate the concept of power with a high position. Likewise, Kroeber-Riel and Barton (1980) conducted two experiments that analyzed the effect of the position of different elements within printed advertisements and their arousal potential. Eye movements and recognition data were used as measures of advertising effectiveness. Emphasis was placed on eye fixations, as they are closely related to human information processing. A total of 91 male students participated in the study and looked at different print advertisements that each contained one color illustration, a brand name, a headline and text

in a standardized arrangement. Results of the study indicate that different positions and arousal potential influence eye-movements and recognition. Certain positions for textual elements in an advertisement were found to be advantageous than others. Information acquisition, which was measured through the number of fixations, has been observed to be better for textual elements such as brand names in the upper half of an advertisement than the lower half.

Moreover, neuroscientific studies confirm the findings of traditional branding literature, which suggest that brand logos function as cues for customers, signaling product quality and thus guiding consumer preference. Stanley and Elrod (2014) conducted an eye-tracking study to examine which cues customers use to identify a product's quality in the context of coffee packaging. They found that consumers fixate primarily and automatically on the brand name, when making product-related judgements. The scholars also observed a link between familiarity with the brands and the quality ratings of the products. The results indicate that logos are not only capable of attracting bottom-up attention, referring to System 1, but are further likely to initiate System 2 processes by connecting the product to the existing brand image in the minds of consumers. In line with this reasoning, Pieters and Wedel (2004) investigated brand, pictorial and text elements in advertisements, by instructing more than 3.600 consumers to read through magazines, while measuring their gaze direction with an eye-tracking device. The authors found that brand logos cannot only increase initial attention but also sustain attention and guide the customer to the advertising message, thereby keeping the customer engaged with the advertising content. In addition to this, Pieters, Warlop and Wedel (2002) observed that advertisements which had familiar and original elements attracted most visual attention.

Another important factor highlighted in the literature is the goal given to consumers when evaluating products. Pieters and Wedel (2007) examined the role of goal control of attention to advertising. They studied the differences in consumers' gaze patterns by having four different processing goals. They found significant differences in where consumers look at when viewing advertisements, depending on which goal they are given. Hence, giving customers a goal, for example to evaluate the product's quality or their level of product liking, could significantly change their gaze pattern in terms of how much attention the logo element would receive.

With regard to the more narrow field of brand extension, which is more closely related to the context of Co-Branding, Stewart et al. (2004) used measurements of eye-movements to evaluate the effectiveness of brand extensions. The authors showed that consumers spend 200 milliseconds longer on the brand logos when exposed to implausible brand extensions compared to plausible brand extensions, as they would cause a direct disruption of visual processing. Since Swaminathan et al. (2015) describe Co-Branding

between a FF and a LF brand as attribute-complementary, they are more likely to be regarded as an implausible brand extension. This would indicate longer visual processing and stronger influences of System 2 processes.

In summary, findings from traditional branding literature reveal that brand names or logos serve as important sources of brand equity and can guide product preferences. In addition, neuroscientific studies provide information about the mechanisms underlying this process. On the one hand, logo elements seem to be able to attract initial attention, related to System 1 thinking, whereby influences like saliency in color-contrast, shape and size as well as the placement of the logo play a dominant role. On the other hand, logos seem to also initiate System 2 thinking, by relating the products to predefined brand associations. The studies presented here indicate that System 2 thinking is more likely to be activated when implausible brand collaborations are presented or when visual processing is guided by a specific evaluation task.

2.5 Research Gap

As presented in 2.1, a number of studies and theoretical papers exist in the field of Luxury Fashion (e.g. Corbellini & Saviolo, 2014; Dubois et al., 2001; Kapferer & Bastien, 2009; Okonkwo, 2007; Vickers & Renand, 2003; Vigneron & Johnson., 2004) as well as Fast Fashion (Barnes & Lea-Greenwood, 2006; Walters, 2006). Furthermore, the general field of Co-Branding has received a great amount of research attention in the past (Baumgarth, 2004; Helmig et al., 2008; Leuthesser et al., 2003; Mazodier & Merunka, 2014; Mishra et al., 2017; Park et al., 1996; Simonin & Ruth, 1998; Swaminathan et al., 2015; Washburn, Till, & Priluck, 2000). Most of these studies analyze the spillover effects, as explained in 2.1.1.3, by drawing on different theories such as brand equity concepts (Aaker, 1991; Keller, 1993, 2008), associative network theory (e.g. Anderson, 1983), attribution theory (Heider, 1958) or the elaboration likelihood model (Petty & Cacioppo, 1986).

In the past 5 years, the field of Co-Branding between Fast Fashion and Luxury Fashion brands has sparked increased interest within the field of traditional branding research (Amatulli et al., 2016; Bruce & Kratz, 2007; Dall'Olmo Riley et al., 2013; Hennigs et al., 2013; Mrad et al., 2019; Oeppen & Jamal, 2014; Shen et al., 2014; Wu & Chalip, 2014). The conducted studies thereby mainly focus on the positive effects that can occur for the involved brands in terms of brand awareness, brand associations and brand loyalty. However, there are some inconsistencies related to the negative effects that can occur for Luxury Fashion brands in terms of the perceived quality when participating in a Co-Branding alliance with a Fast Fashion

brand. While the some research suggests that Co-Branding can severely damage a Luxury Fashion brand's quality perception (e.g. Dall'Olmo Riley et al., 2013; Hennigs et al., 2013), other scholars mainly highlight the positive effects that are likely to occur for both involved parties (e.g. Mrad et al., 2019; Shen et al., 2017). Due to the strong influence of quality on the general perception of a brand (Aaker, 1991; Keller, 1993), it seems likely that a damaged brand quality perception could outweigh other positive effects of Co-Branding for Luxury brands. Consequently, more research is needed in this field to assess the strength of potential negative impacts on quality perception that can occur for Luxury Fashion brands in this context.

All of the above mentioned studies rely on traditional research methods that are based on self-reported measurements, which have, as described in section 2.2, a high possibility to be misleading because they could be shaped by the filters of sense as well as social desirability sought by consumers. This could especially be the case for questions related to Luxury Fashion brands, as they are strongly built on the social value conveyed by the products (Vigneron & Johnson., 2004). But also Fast Fashion brands, which are often linked to detrimental effects on the environment and society (Anguelov, 2015) and questions related to this topic are assumed to be influenced by a social desirability bias of consumers. Further, it has been argued by many researchers that unconscious processes play a crucial role in the processing of advertisements (Li et al., 2016; Poels & Dewitte, 2006). As presented in 2.3.4 under "Neuroscientific studies in the fashion context", a couple of scholars have started gathering data and insights that go beyond conscious reports to capture implicit or unconscious behavior and emotions using methods of neuroscience. Some of these scholars use methods such as eye-tracking or electroencephalography (EEG) to research issues in the fashion industry by focusing for example on Luxury Fashion, specifically on fashion accessories (e.g. Ho, 2014; Zhang et al., 2019). Amatulli et al. (2016) are the first researchers to use neuroscientific methods in an attempt to measure consumer recognizability of Luxury Fashion brands when these are combined with Fast Fashion brands, using the term "Mix-and-Match Fashion" for the combination of two fashion categories. This research comes quite close to the topic of Co-Branding, however neuroscientific research in this specific field remains rare. Moreover, looking back at traditional literature related to fashion Co-Branding, it becomes apparent that researchers who have addressed this topic analyze possible effects on consumer evaluations of brands and products more from a retro perspective, after these collections have been advertised heavily, launched in the market and sold out (e.g. Luck et al., 2014; Mrad et al., 2019). Hence, the scholars take into account the effects of a broad palette of advertising techniques common for the launch of such collaborations, such as influencer marketing, celebrity endorsements, press releases, point-of-sale promotions and TV ads (Hall, 2018; Reyes, 2018; Yotka, 2019). However, even though techniques such as celebrity endorsements and influencer marketing

can be highly influential, practical experience shows that classic online and print advertisements still represent the main method to advertise these collaborations among masses of consumers (see Appendix A for examples). Hence, it is deemed highly interesting to assess the power of these advertisements, by analyzing whether the exposure to only a single Co-Branding ad can already impact consumer perceptions and reward-related responses.

In 2.4 the crucial role of logo elements or brand names as signals for customers in their product evaluation process has been explained. Most of the reviewed literature thereby based its research on cue utilization theory (Olson, 1978). As elaborated in this section, logos are found to have a visual structure and a meaning structure (Garner, 1974). While the visual structure is related to informational properties such as shape or color, the meaning structure is connected to the associated meaning of the logos. Traditional research on the meaning transferred by logos or brand names goes far back. Richardson et a. (1994), Jacoby et al. (1971) or Rao and Monroe (1989) have examined the influence of logos and found that they take precedence over other cues of information in a consumer's decision making process as they serve as cues for quality. Rao and Ruekert (1994) even established a closer link to Co-Branding in this context, by finding that two established brands tend to signal higher quality to consumers than a single brand on its own.

More recent studies by Patil (2017) as well as Round and Roper (2015) highlight the importance of brand names not only in terms of quality perceptions but also in terms of the product preference in the fashion context. However, Rahman et al. (2017) argue that in terms of preference for fashion items, other cues like fit and style of the garment are more important than brand names. However, as these studies are based on traditional research, relying on self-reported measurements, they do not take into account unconscious processes in the decision making process and cannot provide insights into where consumers' visual attention is drawn when making judgements about product preferences.

Neuroscientific studies in the context of logos thereby highlight their role in terms of the ability to trigger bottom-up as well as top-down processes. Bottom-up influences are connected to the visual structure of a logo, while top-down processes are related to its meaning structure. In terms of bottom-up processes the factors of contrast in shape, color, luminance and placement have been identified as most influential (e.g. Clement et al., 2013; Sundar & Noseworthy, 2014; Turatto & Galfano, 2000). Neuroscientific studies further established a link between logos and the ability to activate top-down processes (e.g. Pieters & Wedel, 2004; Stanley & Elrod, 2014). Hereby, the goal given to consumers was identified as an important factor and hence modify consumers' responses to products (e.g. Pieters & Wedel, 2007).

When combining the findings from traditional and neuroscientific branding literature, a research gap becomes apparent in the specific field of Co-Branding advertisements in the fashion industry. The importance of logos as a cue for quality as well as a trigger for product liking and wanting in Co-Branding advertisements seems to be under researched, especially with regards to the conscious and unconscious mechanisms involved in these processes. The research gap becomes particularly evident when looking specifically at logos in Co-Branding advertisements in the fashion industry. To the best knowledge of the authors of this thesis, no scholar has so far examined the effect of logo condition (single FF vs. single LF vs. CB logo) and placement in advertisements on consumers' product liking and wanting as well as their perception of brand and product quality for both, the FF and LF brands.

Considering the different layers of information that are provided by past traditional and neuroscientific studies, a mixed research method seems suitable in this context. However, existing studies have not considered this connection so far. To fill this gap, the originality of the underlying study lies in the proposal of a mixed-method approach, using an online survey and combining it with insights of an eye-tracking experiment. This allows not only for an identification of the meaning that consumers derive from the different logo conditions, but also the influence of visual aspects of the logo or other elements in the advertisements that guide consumers' visual attention. Hence, a more holistic insight into explicit and implicit reactions can be gained. Ultimately the study thereby aims to add important findings to the field of research in relation to the specific role of logos as cues for consumers in Co-Branding advertisements. Additionally, as opposed to past research, this study is not applying a retrospective view on Co-Branding collaborations. Instead the influential power of a single Co-Branding advertisement on consumers' evaluations and their reward-related responses is demonstrated through this study.

3. Research Design

The initial aim of this thesis was to use a neuroscientific research method to study the effects of logos in Fast- and Luxury Fashion Co-Branding advertisements on consumers' perception of product quality and brand quality as well as their product liking and wanting. Hence, an eye-tracking experiment was planned out and set-up with the goal to collect quantitative and qualitative data about participants' gaze patterns when looking at Co-Branding advertisements. However, due to the global impact of the Coronavirus (COVID-19) and the closure of Copenhagen Business School and its SenseLab as a precautionary measure enforced by the Danish government, the eye-tracking experiment could not be conducted as part of this thesis in the given time frame.

Instead, a quantitative online survey containing elements of the eye-tracking experiment was deemed as an appropriate alternative testing method. Results arising from the survey can potentially be paired with insights of the set-up eye-tracking experiment, if it was to be conducted in the future. Combining results from a mixed methods methodology could have the potential to enrich the understanding of the research problem and may add better contributions to the field of research.

Figure 7 presents the overarching research framework, giving an overview of the proposed effects of the study. The logo condition and logo placement represent the independent variables which are assumed to have an effect on the dependent variables (perceived brand quality, perceived product quality, product liking and wanting) presented in the framework.

An expansion of the research framework is possible through the eye-tracking experiment by adding the visual attention metrics total fixation time (TFT) and total number of fixations as mediating variables. These mediators serve as an explanation of the relation between the independent variables and the dependent variables. Additionally, a relationship is proposed between the dependent variables perceived brand quality, perceived product quality and product liking, which will be further elaborated in 3.2.

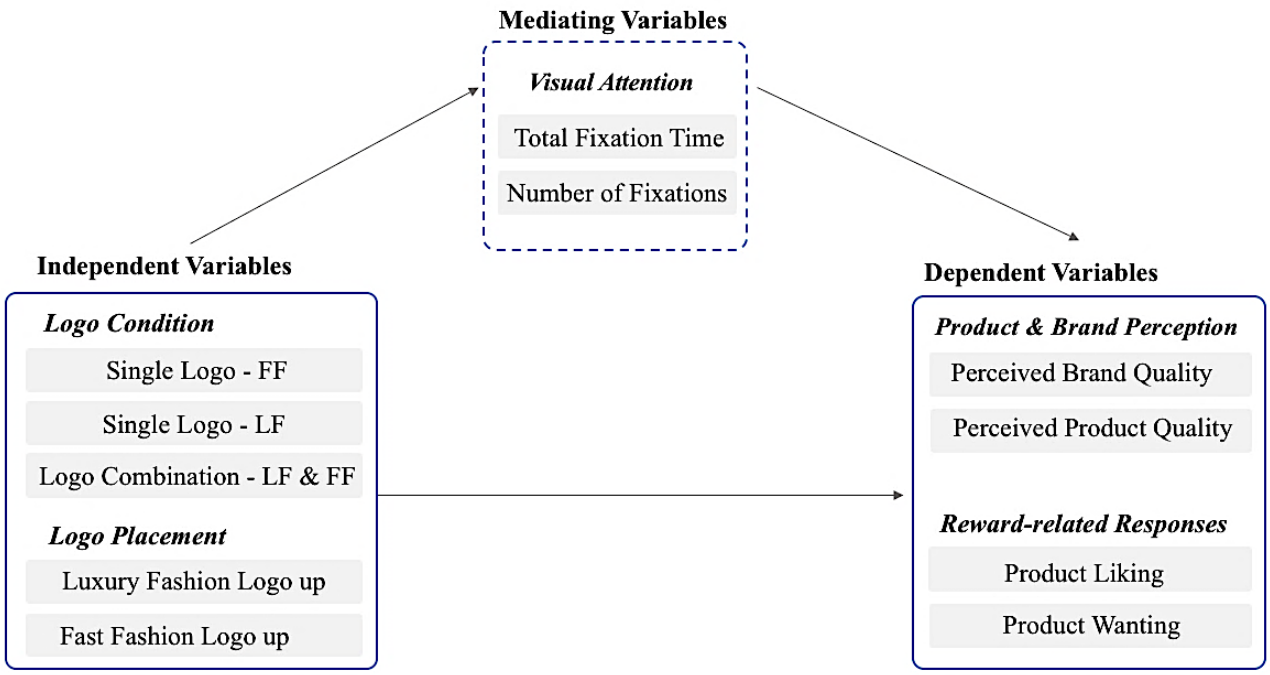

Figure 7: Overarching research framework for the online survey and eye-tracking experiment

3.1 Definition of Variables

All independent, dependent and control variables elaborated in this section apply to both, the online survey and the eye-tracking experiment. The only exception are the visual attention metrics elaborated under 3.1.3 as mediating variables, which only pertain to the eye-tracking experiment and not the online survey. An overview of all variables with the chosen operationalization is provided in table 2.

Variables	Measurement	Explanation
Dependent variables (behavioral)		
Perceived Product Quality	Questionnaire within both studies. *Online Survey:* Discrete 7-point Likert scale ranging from "very low" to "very high" *Eye-Tracking Experiment:* Continuous 5-point Likert scale ranging from "very low" to "very high"	Subjective perception of the shown fashion item's product quality as reported by participants
Perceived Brand Quality	Questionnaire within both studies. *Online Survey:* Discrete 7-point Likert scale ranging from "very low" to "very high" *Eye-Tracking Experiment:* Continuous 5-point Likert scale ranging from "very low" to "very high"	Subjective perception of the overall brand quality of all brands shown throughout the experiment as reported by participants
Product Liking	Questionnaire within both studies. *Online Survey:* Discrete 7-point Likert scale ranging from "dislike very much" to "like very much" *Eye-Tracking Experiment:* Continuous 5-point Likert scale ranging from "dislike a lot" to "like a lot"	Subjective liking of the shown fashion items as reported by participants
Product Wanting	Questionnaire within both studies. *Online Survey:* Discrete 7-point Likert scale ranging from "don't want at all" to "want very much" *Eye-Tracking Experiment:* Continuous 5-point Likert scale ranging from "don't want at all" to "want a lot"	Subjective wanting of the shown fashion items as reported by participants

Mediating variables (physiological)		
Total Fixation Time (TFT)	Eye-Tracking. Measured as total duration of participants' fixations towards a specific AOI throughout the whole viewing period of the advertisement (in milliseconds) (Bylinskii & Borkin, 2015)	The metric quantifies the amount of time respondents are looking at a certain AOI. A long fixation time at an area can indicate a high level of interest or information complexity and is often associated with motivation and top-down attention (Farnsworth, 2018).
Total Number of Fixations	Eye Tracking. Measured as the total number of fixation counts towards a specific AOI (Tullis & Albert, 2013)	The metric is linked to the importance or noticeability of a specific area (Bylinskii & Borkin, 2015).

Table 2: Overview of independent and dependent variables

3.1.1 Independent Variables

An independent variable is defined as a metric that causes change in a dependent variable (Saunders, Lewis, & Thornhill, 2014). In this research, the independent variable is the logo *condition* and *placement*. The effects of advertising with a single Fast Fashion logo, a single Luxury Fashion logo and a combination of the two logos on the dependent variables are tested. Further, when showing a combination of logos in a Co-Branding advertisement, the effects of placing the Fast Fashion logo above the Luxury Fashion logo versus the other way around are tested by comparing potential changes in the dependent variables.

3.1.2 Dependent Variables

A dependent variable is defined as a metric that changes in response to changes in other variables (Saunders et al., 2014). In the context of this research, three dependent variables are looked at, which are elaborated in the following.

Product Liking

In both, the online survey and the eye-tracking experiment, participants are asked for their subjective liking (PL) of the different fashion items that are shown in the advertisements presented to them. According to researchers Page and Herr (2002), liking is an affective component of attitudes consumers have towards products and brands, which differs from cognitive components (evaluative beliefs and thoughts about an attitude object). Affective judgments such as liking are believed to be largely derived from aesthetic aspects of a consumer product (Kunst-Wilson & Zajonc, 1980; Page & Herr, 2002; Veryzer & Hutchinson, 1998). To examine the influence product aesthetics have on product liking, the eye-

tracking experiment could offer additional insights. By looking at respondents' gaze patterns when product liking is evaluated high, one could not only analyze visual attention towards the logos but also towards the fashion item and obtain hints about important aesthetic components of the garment.

Product Wanting

In addition to product liking, participants are also asked for an evaluation of their wanting (PW) of the shown fashion product. As established by extant research, liking and wanting naturally act in tandem (Anselme & Robinson, 2015). However, these two concepts are distinct from another and can sometimes diverge, for example when consumers are exposed to advertisements, potentially leading to peaks of wanting and strong urges to consume the shown product. Hence, it is deemed relevant to observe whether Co-Branding advertisements can trigger increased evaluations of wanting compared to the actual liking of the shown product.

Perceived Product Quality

Another dependent variable measured in both experiments is the subjective perception of the shown fashion item's product quality (PPQ) as reported by participants. Aaker (1991) defines perceived product quality as "the customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose relative to alternatives". Researchers Page and Herr (2002) argue that product quality judgments tend to take longer to process than e.g. liking and involve the integration of both, design and brand information.

Perceived Brand Quality

Perceived Brand Quality (PBQ) is described as an overall, intangible, subjective feeling about a brand that serves as a summary construct (Aaker, 1991; Akram, Merunka, & Akram, 2011). As pointed out by Yoo, Donthu and Lee (2000), PBQ is a component of brand value, leading consumers to choose a particular brand over other competing ones.

3.1.3 Mediating Variables

A mediator is a variable that explains the nature of the relationship between an independent variable and a dependent variable (Gellman & Turner, 2013). When expanding the research to include an eye-tracking experiment, two mediating variables, which can be summarized under the term visual attention become apparent. It is assumed that these two visual attention metrics can add to the explanation of the relationship between the independent and dependent variables.

Total Fixation Time (TFT)

The eye-tracking metric Total Fixation Time (TFT) quantifies the amount of time respondents are looking at a certain AOI. Long fixation time at an area can indicate a high level of interest or information complexity and is often associated with motivation and top-down attention (Duchowski, 2007; Farnsworth, 2018). TFT is measured as the total duration of participants' fixations towards a specific AOI throughout the whole viewing period of the advertisement in milliseconds (Bylinskii & Borkin, 2015).

Total Number of Fixations (Fixation Count)

The total number of fixations that are directed towards a certain area of the advertisement shows that more visual attention has been directed there (Farnsworth, 2018). The reason why this happens can often be difficult to determine, however this measure provides a good starting point for understanding which AOIs best capture the viewer's attention. Bylinskii and Borkin (2015) suggest that this metric is linked to the importance or noticeability of a specific area. Goldberg et al. (1999) argue that a higher number of fixations means that the search for finding relevant information may be difficult. Other researchers and practitioners have linked a higher fixation count to a bigger complexity as well as more visual effort, confusion and uncertainty in recognizing the elements necessary to complete a given task (Sharafi, Shaffer, Sharif, & Guéhéneuc, 2015; Tobii AB, 2020). The total number of fixations is measured as the total number of fixation counts towards a specific AOI (Tullis & Albert, 2013).

3.1.4 Control Variables

To conduct a study with the highest possible level of validity, certain variables that could influence the results of the research have been identified in an attempt to control them. One of these variables is the participants' personal *involvement in fashion* (FI). It is assumed that the set-up hypotheses can only be tested properly when participants show a certain basic level of interest in fashion and knowledge of fashion brands (both Fast Fashion and Luxury). To test whether participants fulfil this basic requirement, each respondent had to answer questions about how often they shop clothing for themselves, how often they purchase products from luxury brands and which of all the brands included in the experiment they know. Respondents who did not know more than two of the presented brands (excluding the fictional brands) were removed from the sample. In a study conducted by Amatulli et al. (2016) which explored the "mix-and-match" fashion consumption trend and the brand recognition of Luxury Fashion Brands, participants were similarly tested for their fashion involvement.

Another identified control variable, which is elaborated in section 2.1.2.4 as a critical factor for successful Co-Branding collaborations, is the *popularity of the Luxury Fashion brand*. Based on conducted research, Fast Fashion brands should ideally collaborate with well-known luxury brands that have a high brand loyalty in order to benefit from positive spill-over effects (Shen et al., 2017). Hence, all Luxury Fashion Brands presented in the conducted study were chosen based on their popularity and brand value (Statista, 2020a). The presented Fast Fashion brands in the experiment were chosen based on brand awareness in the European market to ensure that as many participants as possible are familiar with them (Choi & Ren, 2016; Internet Retailing, 2017).

Lastly, an additional control variable is the *easy categorization of the brands* into the segments Fast Fashion and Luxury Fashion by respondents. Due to the high popularity and brand awareness of all three Fast Fashion and Luxury Fashion Brands chosen for this experiment, it is assumed that participants will be able to categorize the retailers into the respective fashion categories without difficulties. A study conducted by Burešová (2016) supports this assumption. In the research about fashion categories and their relation to price and quality, sixty college students had to assign clothing retailers to different categories of fashion brands. Zara, H&M and Mango were assigned to the categories of cheaper, conventional fashion. In contrast, Chanel, Dior and Gucci were all clearly associated with the category Luxury Fashion. The free-association test that was conducted with 10 participants before the experiment could further confirm this assumption (Appendix B).

3.2 Hypotheses Development

Based on the conducted research in the field and the recognition of an existing research gap, the following hypotheses are developed and will be tested in the online experiment to measure the influences of Co-Branding logos on product liking and wanting as well as perceived product and brand quality. It is further developed that perceived product quality can work as a mediator in the relationship between perceived brand quality and product liking. Lastly, additional hypotheses that could be tested with an extension of the study by an eye-tracking experiment are developed. Figure 8 as well as Figure 9 visualize the proposed relationships between the variables, along with the particular hypotheses.

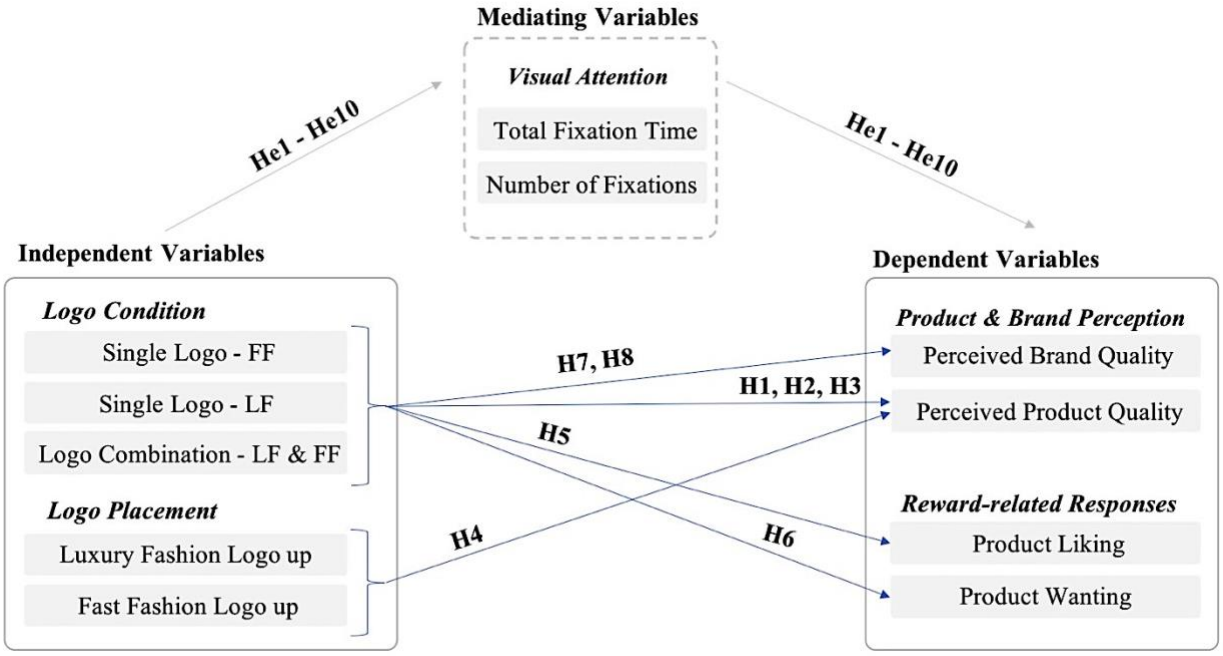

Figure 8: Research framework with the proposed hypotheses

Effect of Logo Condition and Placement on Product Quality

As described in 2.1.1.3 consumer's build association networks to organize knowledge and facilitate decision making. As displayed in Figure 2 in section 2.1.1.1, Luxury Fashion brands and Fast Fashion brands are connected to completely different association networks. Further, as described in section 2.4, brand names and logos can serve as extrinsic cues for evaluating the quality of a product (e.g. Jacoby et al., 1971; Rao & Monroe, 1989; Richardson et al., 1994). Thereby, Luxury Fashion brands and Fast Fashion brands are likely to differ tremendously in their meaning structure (Corbellini & Saviolo, 2014), signaling different levels of quality to the customers. Luxury Fashion logos are thereby likely to serve as cues for higher quality than Fast Fashion logos (e.g. Kapferer & Bastien, 2009). **H1** therefore suggests, that a product which is advertised with a Luxury Fashion logo will lead to a higher quality evaluation than the same product being advertised with a Fast Fashion logo:

H1: The same product is rated higher in quality when the advertisement includes a Luxury Fashion logo compared to a Fast Fashion logo

As described in section 2.1.1.3, research suggests that products which are advertised with two brand names tend to be evaluated as higher quality products than products which are only advertised with one logo, because consumers have more quality cues to access the product's quality (Rao & Ruekert, 1994). These results were however achieved with two brands that were comparable in terms of their quality levels. Due to the high discrepancy in the quality perception of FF brands and LF brands, as described in section 2.1.2.1, it is suggested that a combination of logos only leads to a higher perception of product quality when it is compared to showing only a single Fast Fashion logo. Reversely, a comparison of the two logos to the single Luxury Fashion logo condition is suggested to have a negative effect on the perceived product quality. Research of Sundar and Noseworthy (2014), as explained in 2.3.2.3, further highlights that consumers prefer if a strong brand is placed in the upper half of a product or advertisement compared to the lower half, as they would unconsciously connect the concept of power with a high position. Moreover, it has been found by researchers Kroeber-Riel and Barton (1980) that textual elements such as logos, which are placed in the upper half of an advertisement, tend to attract more visual attention than text elements placed on the lower half. In the underlying context, this increased attention towards brand logos positioned higher at the top is assumed to be linked with a stronger influence on respondents' evaluations of product quality, due to suggestions that visual attention metrics can serve as an estimation of the acquisition of advertising information, such as product quality or price (Kroeber-Riel & Barton, 1980). Therefore, it is assumed that when a combination of logos is shown, the product quality will be rated higher when the Luxury Fashion logo is placed above the Fast Fashion logo, compared to the other way around. Simultaneously, in the logo combination condition it is expected that the product quality will be rated lower when the Fast Fashion logo is placed above the Luxury Fashion logo, compared to the other way around. Based on extant theoretical insights, **H2**, **H3** as well as **H4** are derived.

H2: The same product is rated higher in quality when the advertisement includes a combination of Luxury- and Fast Fashion logos compared to when it includes only a Fast Fashion logo.

H3: The same product is rated lower in quality when the advertisement includes a combination of Luxury- and Fast Fashion logos compared to when it includes only a Luxury Fashion logo.

H4: When a combination of logos is shown, the quality of the product is rated higher when the Luxury Fashion logo is placed above, compared to when the Luxury Fashion logo is placed below the Fast Fashion logo.

Effect of Logo Condition on Product Liking

As described in section 2.1.2.4, clothing selection is a uniqueness-seeking behavior, meaning that with fashion items, consumers are aiming to relate themselves to specific groups or distinguish themselves from others. More than both brands on their own, Co-Branded products deliver a very high level of uniqueness. The typical characteristic of Co-Branding collections of only being available for a short period of time further enhances the level of uniqueness and exclusivity. In 2.4 mixed findings were presented considering the influence of logos in terms of product preference. While a study by Rahman et al. (2017) indicates that when it comes to product liking consumers pay more attention to the fit and style of the garment than to the brand name, other studies like the one by Grasby et al. (2019) highlight the importance of brand names for new product introductions. This could especially be the case of new Co-Branded products. Thereby an established brand name is able to guide product preference (e.g. Patil, 2017). At the same time, researchers found that the advertisement of a product with two brand logos leads to a more favorable evaluation of the product (e.g. Rao & Ruekert, 1994), especially if they are two familiar brands. Hence **H5** is proposed:

H5: The same product is liked more when the advertisement includes a combination of Luxury- and Fast Fashion logo compared to when only a single logo is shown, regardless of whether it is a single Fast- or Luxury Fashion logo.

Effects of Logo Condition on Product Wanting

Anselme and Robinson (2015) describe how consumers' exposure to advertisements can lead to peaks of unconscious wanting and strong urges to consume the shown product, while the actual liking of the product may remain the same (see section 2.3.3). In many cases, the advertisement of Co-Branding collaborations is the recipe for success to boost consumer demand. Existing collaborations in practice demonstrate that when a Luxury and a Fast Fashion brand join forces, they tend to attract increased attention through advertising and sometimes even create a "hype" among customers and the media (Mrad et al., 2019). This is especially the case when the Co-Branding items are being advertised as designed by the Luxury Fashion brand, but are more affordable and closer to the Fast Fashion price range (Mrad et al., 2019). Shen et al. (2014) argue that clothing selection is a uniqueness-seeking behavior and Co-Branding collaborations create exactly that in the market. Many of these collections are only produced in small quantities and sold for a limited time, which further boosts customer anticipation and wanting, leading to the garments being sold-out within a few hours or even minutes (Shen et al., 2014). Due to the novelty and exclusivity of Co-Branding between Fast- and Luxury Fashion Brands, it is assumed that participants

show similar reactions to the advertisements which include two brand logos. Hence, based on theoretical insights and experience from practice, **H6** is developed:

H6: The same product is wanted more when the advertisement includes a combination of Luxury- and Fast Fashion logo compared to when only a single logo is shown, regardless of whether it is a single Fast- or Luxury Fashion logo.

Effects of Logo Condition on Brand Quality

As described in section 2.1.1.3, Co-Branded products have the potential to modify consumer attitudes toward the partnering brands by creating spillover effects (Simonin & Ruth, 1998). Washburn et al. (2000) found that low quality brands would thereby gain most from such brand alliances, while high quality brands could suffer from a partner that has low brand quality. As LF brand are generally perceived as high quality brands (e.g. Kapferer & Bastien, 2009) and FF brand are perceived as low quality brands (e.g. Walters, 2006), it can be suggested that the PBQ of FF brand would be enhanced through Co-Branding with a LF brand, while the PBQ of the LF brand would be reduced. Further, as described in 2.1.3.1, Mishra et al. (2017) found that in a brand alliance the quality level of a secondary brand positively influences the quality of the primary brand. As FF brands in Co-Brandings are likely to be the primary brands (Labbrand, 2011), it can be assumed that the PBQ of the FF brand will be enhanced. Based on these findings, the current study suggests that the FF brand will profit from positive spillover effects from the LF brand, which will lead to a higher rating of perceived brand quality for the FF brand. Reversely, literature insights suggest that the LF brand is likely to be negatively impacted by the FF brand, resulting in lower evaluations of perceived brand quality. This leads to the development of **H7** and **H8**.

H7: The same product results in higher perceived brand quality for the Fast Fashion brand when it is advertised using a combination of logos compared to only a single Fast Fashion logo.

H8: The same product results in lower perceived brand quality for *the Luxury Fashion brand when it is advertised using a combination of logos compared to only a single Luxury Fashion logo.*

Relationship between Perceived Brand Quality, Perceived Product Quality and Product Liking

The reviewed literature in 2.1.3 as well as in 2.4 gives strong indications that perceived quality is guiding consumers to prefer one product over the other. Both perceived brand and product quality are thereby linked to the dimension of perceived quality in Aaker's (1991) brand equity model. A strong brand equity is thereby argued to significantly influence a brand's product preference (e.g. Aaker, 1991; Keller, 1993). Mitra and Golder (2006) highlight that it is not the objective quality but the perceived quality that leads to preferences. In their studies the authors found that in case of a change in quality, a well-established

brand suffers less in terms of product preference, because the perceived quality of the product stays higher than it actually is. So, if a brand is perceived as producing high quality, their products are perceived as high quality as well, regardless of whether the products actually are of high quality. In the context of Co-Branded products, **H9** therefore proposes that the level of perceived quality of the involved brands influences how much the product is liked. **H10** further suggests that this effect is mediated by the perceived product quality that is advertised, indicating that the perceived brand quality only has an effect on product liking if the product's quality is perceived high as well. Figure 9 visualizes the relationship between these variables.

H9: The level of perceived brand quality in a Co-Branded advertisement is an indicator for product liking.

H10: The effect of perceived brand quality on product liking in a Co-Branded advertisement is mediated by the perceived quality of the product.

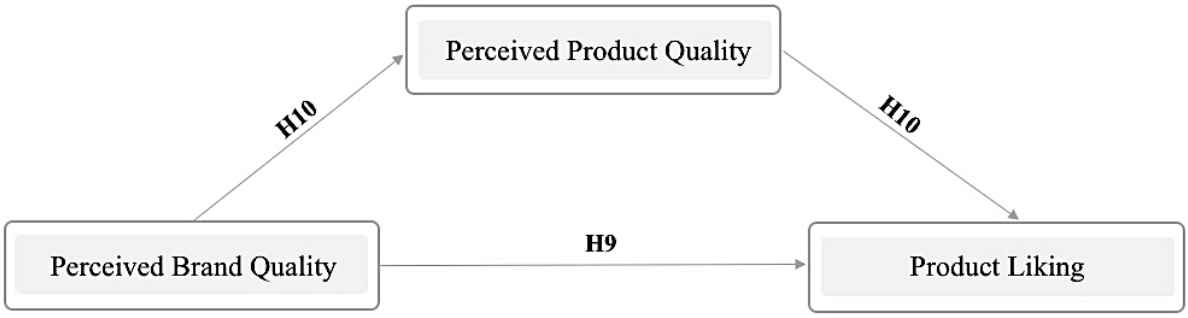

Figure 9: PPQ as mediator in the relationship between Perceived Brand Quality and Product Liking

Additional Hypotheses for the Eye-tracking Experiment

If the eye-tracking experiment was to be conducted, additional hypotheses related to the eye-tracking metrics (He1-He10) can be added to the research framework. He1-He9 are thereby solely related to the advertisements showing a combination of a Fast- and a Luxury Fashion Logo, while He10 highlights the importance of visual attention in the comparison between the Co-Branding logo and the single logo conditions. Total fixation time (TFT) and number of fixations are selected as the eye-tracking metrics in focus, as they are deemed as the most significant influences on the dependent variables. In general terms, neuroscientists argue that eye fixation can be used as an indicator of the acquisition of advertising information (Kroeber-Riel & Barton, 1980). As described in section 3.2.2, total fixation time has been

linked by researchers to levels of interest and motivation towards a specific area (Duchowski, 2007; Farnsworth, 2018). The number of fixations can serve as an indicator of where most visual attention is directed to and which elements capture the viewer's attention (Bylinskii & Borkin, 2015; Farnsworth, 2018). The metric has also been linked to the importance or complexity of a certain area (Sharafi et al., 2015; Tobii AB, 2020). As argued by Hyönä (2010), there is a close link between human gaze and the focus of attention, adding to the assumption that respondents attend elements to which their eye is fixating on more.

Mediation Hypothesis

Based on the above findings, **He1** assumes that the visual attention towards the different brand logos mediates the evaluation of the product in terms of liking, wanting, perceived product quality and the quality perception of the partnering brands.

He1: The effect of Co-Branding logos on liking and wanting of the products as well as perceived product and brand quality is mediated by the visual attention towards the different brand logos.

In the following, the effects included in the mediation hypothesis will be derived in more detail. Hereby it is more specifically assumed, that an increased fixation time and number of fixations towards the Luxury Fashion logo will enhance the evaluation of the product.

Effects on Perceived Product Quality

An eye-tracking study by Stanley and Elrod (2014) found high correlations between the fixation duration of the brand logos and the level of perceived product quality ratings. Luxury Fashion Brands are perceived as of significantly higher quality compared to Fast Fashion brands (e.g. Corbellini & Saviolo, 2014). This in in line with previously presented findings from traditional branding research (e.g. Erdem & Swait, 1998; Rao & Ruekert, 1994). Hence, as formulated in **He2** and **He3** below, it is assumed that a higher fixation duration and higher number of fixations on the Luxury Fashion logo compared to the Fast Fashion logo will lead to higher evaluations of perceived product quality. Conversely, it is argued that a higher fixation duration and number of the fixations on the Fast Fashion logo will lead to lower evaluations of perceived product quality.

He2: If the total fixation time and number of fixations are higher for the Luxury Fashion logo than for the Fast Fashion logo, the product quality is evaluated higher.

He3: If the total fixation time and number of fixations are higher for the Fast Fashion logo than for the Luxury Fashion logo, the product quality is evaluated lower.

Effects on Product Liking and Wanting

As already elaborated, the number of fixations can serve as an indicator of where most visual attention is directed to (Bylinskii & Borkin, 2015; Farnsworth, 2018), while the total fixation time has been linked by researchers to levels of interest and motivation towards a specific area (Duchowski, 2007; Farnsworth, 2018). As Luxury Fashion Brands are perceived as exclusive and highly hedonic in nature (e.g. Kapferer & Bastien, 2009), they are likely to induce higher feelings of liking and wanting, because the two concepts are strongly linked to emotional reward behavior (Berridge & Robinson, 2016). Further, the association of a Luxury Fashion logo with high fashion designers is mostly responsible for the "hype" created through Co-Branding alliances (Mrad et al., 2019). **He4 – He7** therefore propose that stronger visual attention towards the LF brand compared to the FF brand, as measured by the total fixation time and the number of fixations, will lead to higher evaluations of product liking and wanting. Conversely, it is argued that an increased visual attention towards the Fast Fashion logo will result in lower evaluations of product liking and wanting.

He4: If the total fixation time and number of fixations are higher for the Luxury Fashion logo than for the Fast Fashion logo, the product liking is evaluated higher.

He5: If the total fixation time and number of fixations are higher for the Fast Fashion logo than for the Luxury Fashion logo, the product liking is evaluated lower.

He6: If the total fixation time and number of fixations are higher for the Luxury Fashion logo than for the Fast Fashion logo, the product wanting is evaluated higher.

He7: If the total fixation time and number of fixations are higher for the Fast Fashion logo than for the Luxury Fashion logo, the product wanting is evaluated lower.

Effects on Perceived Brand Quality

As described in 2.1.1.3, Co-Branded products have the ability to modify consumer attitudes towards the partnering brands by creating spillover effects (Simonin & Ruth, 1998). Hereby, it is of interest that the high quality perception of the Luxury Fashion brand can be transferred to the Fast Fashion brand and also the low quality perception of the latter can be shifted to the first. As the logo that receives most visual attention will guide the evaluation (e.g. Farnsworth, 2018; Hyönä, 2010), **He8** and **He9** argue that if the total fixation time and the number of fixations are higher for the Luxury Fashion logo compared to the Fast Fashion logo, the brand quality for both brands is evaluated higher. Conversely, it is argued that if the visual attention to the Fast Fashion logo is higher compared to the Luxury Fashion Logo both brands will be evaluated lower in quality.

He8: If the total fixation time and number of fixations are higher for the Luxury-Fashion logo than for the Fast Fashion logo, the brand quality for both brands is evaluated higher.

He9: If the total fixation time and number of fixations are higher for the Fast Fashion logo than for the Luxury-Fashion logo, the brand quality for both brands is evaluated lower.

Influence of Logo Condition of Product Evaluation

The final hypothesis proposes an influence of visual attention on consumers' quality evaluations and affective responses when comparing the Co-Branding conditions to the single logo conditions. Adding to the above findings, Stewart et al. (2004) found that consumers spend 200 milliseconds longer on brand logos when exposed to implausible brand extensions compared to plausible brand extensions (see 2.3.2.3). As Luxury and Fast Fashion retailers tend to be associated with very opposing brand attributes (Swaminathan et al., 2015), it seems likely that this type of brand extension will be perceived as rather implausible and thus leading to longer visual processing of the stimulus compared to a single logo condition. Moreover, the number of fixations has also been linked to the complexity of a certain area (Sharafi et al., 2015; Tobii AB, 2020), and the combination of a LF and a FF logo is assumed to be more complex to process than a single logo. **He10** therefore proposes that a Co-Branded product by a Luxury- and a Fast Fashion brand will receive a higher total fixation time and a higher number of fixations, which leads to higher evaluations of product liking and wanting as well as perceived product and brand quality, compared to a single-branded product.

He10: The total fixation time and number of fixations on logos are higher in the Co-Branding condition compared to the single-branding condition, resulting in higher evaluations of product liking and wanting as well as perceived product and brand quality.

4. Empirical Testing of Research Design

In the following, the testing of the previously described research design is explained. Therefore, the methodology is presented first, followed by the descriptive statistics of the sample. In the last part, the hypotheses are tested by statistically analyzing the results from the online survey.

4.1. Methodology

In this section, the methodological considerations of the initially planned and set-up eye-tracking experiment and the modified online survey are elaborated. The combination of both methodologies thereby provides a holistic research approach to the earlier defined topic.

4.1.1 Eye-Tracking Experiment

The methodology of the eye-tracking experiment provides the basis for the conducted online survey. If the eye-tracking experiment was to be executed in the future, data from this study can be paired and complemented with insights from the online survey. Both quantitative and qualitative insights can be gained from the eye-tracking experiment. On the one hand, it can deliver a large amount of data of participants' gaze patterns, appropriate for detailed statistical analysis of visual behavior. On the other hand, observation and analysis of just a few selected participants' recordings provide qualitative insights into individual gaze patterns.

4.1.1.1 Definition of Areas of Interest

To analyze participants' visual attention towards certain elements, different regions of the created advertisements were specified. These are defined as Areas of Interest (AOI) and allow an extraction of relevant eye-tracking measures specifically for the regions in focus. Figure 10 depicts the determined AOIs related to brand and clothing elements, which are applicable for all single- and Co-Branded advertisements as well as distractors that are part of the experiment. For the brand elements, Luxury Fashion logos were labeled as AOI #1 and Fast Fashion logos as AOI #2. The clothing element worn by the model was labeled as AOI #3.

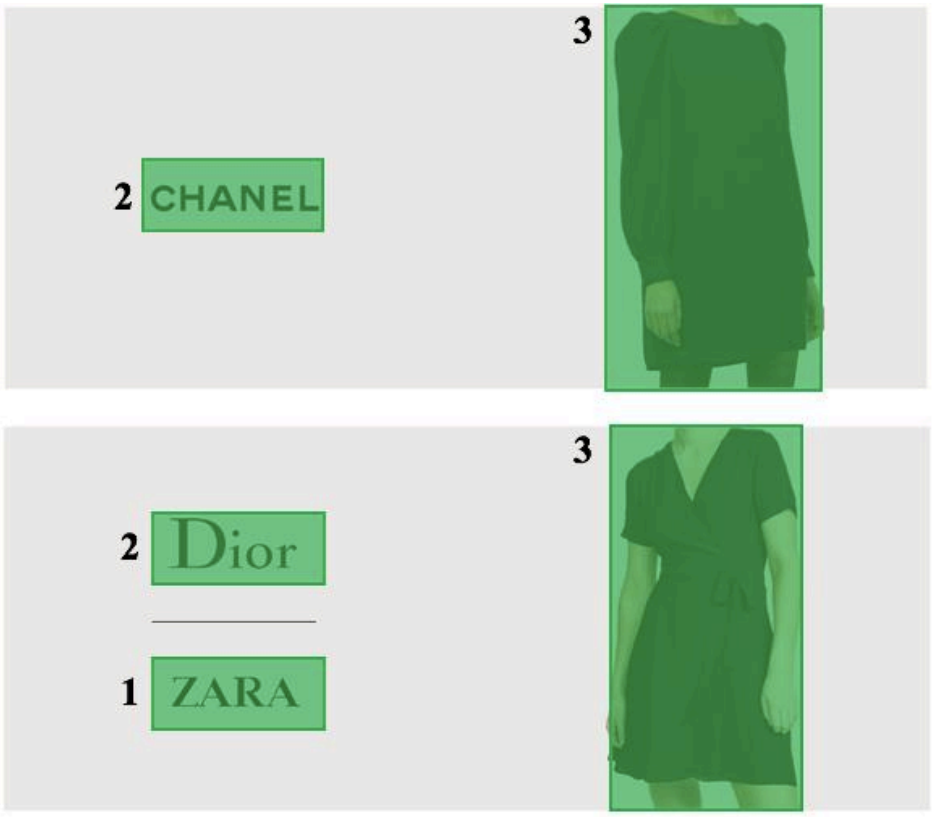

Figure 10: Defined Areas of Interest (AOI)

4.1.1.2 Research Methods

The study was supposed to be conducted in the Decision Neuroscience Research Cluster (DNRC) Senselab at Copenhagen Business School, using the screen-based eye-tracker Tobii Pro T60 XL with a sampling rate of 60 Hz. The software iMotions and its built in Attention Tool was used to create the study and would have also been used to collect the eye-tracking data. All participants were supposed to sit on a robust, non-adjustable chair in front of the screen with an approximate distance of 50 cm to the eye-tracker while participating in the experiment.

4.1.1.3 Pre-Test

A pre-test was conducted which built on best-practice recommendations and advice given by members of the DNRC. Two volunteers that fit the sample criteria were recruited through convenience sampling and took part in the pilot test. After the study finished, both volunteers were asked specific questions and gave additional input related to their experience throughout the experiment. This feedback proved to be very useful and allowed an optimization of the study design by making specific adjustments in the software and editing the stimulus material.

4.1.1.4 Experiment Design

To test the hypotheses and analyze the effects of Co-Branded advertisements compared to single-branded ones in relation to product and brand quality perception as well as reward-related mechanisms, the experiment is set up as a between-subjects design (Duchowski, 2007). Three different groups are created, which the participants are equally divided into. All experiments are identical in structure and methodology, however details concerning the stimuli order and brand logos alter within groups (see Figure 11). Each experiment is divided into four parts and starts with an introduction screen which gives clear instructions to the participant in English language.

Group	Single Logo – Luxury Fashion (LF)	Single Logo – Fast Fashion (FF)	Logo Combination – LF & FF
1	**Chanel**  	**H&M**  	**Dior & Zara**  
2	**Dior**  	**Mango**  	**Gucci & H&M**  

Figure 11: Overview of stimuli per experiment group

Experiment Part I – III: Perceived Product Quality, Product Liking and Wanting

In the first three parts of the experiment, the test person is exposed to six fashion advertisements showing different black dresses for five seconds each. The first two advertisements always feature a specific Luxury Fashion logo (e.g. Chanel), the following two advertisements contain a specific Fast Fashion logo (e.g. H&M) and the last two show a combination of two specific Fast- and Luxury Fashion logos. When the combination of logos is shown, one advertisement pictures the Luxury Fashion logo above the Fast Fashion logo, and the other one shows the reverse placement.

After each ad featuring a black dress, a distractor is shown with a fictional brand logo and a random clothing item (see Appendix C). In order to fixate the test person's gaze in the same position before being exposed to a stimulus, a simple screen with a cross in the middle is preceding every advertisement shown and participants are instructed to fixate on it each time it is visible, as visualized in Figure 12.

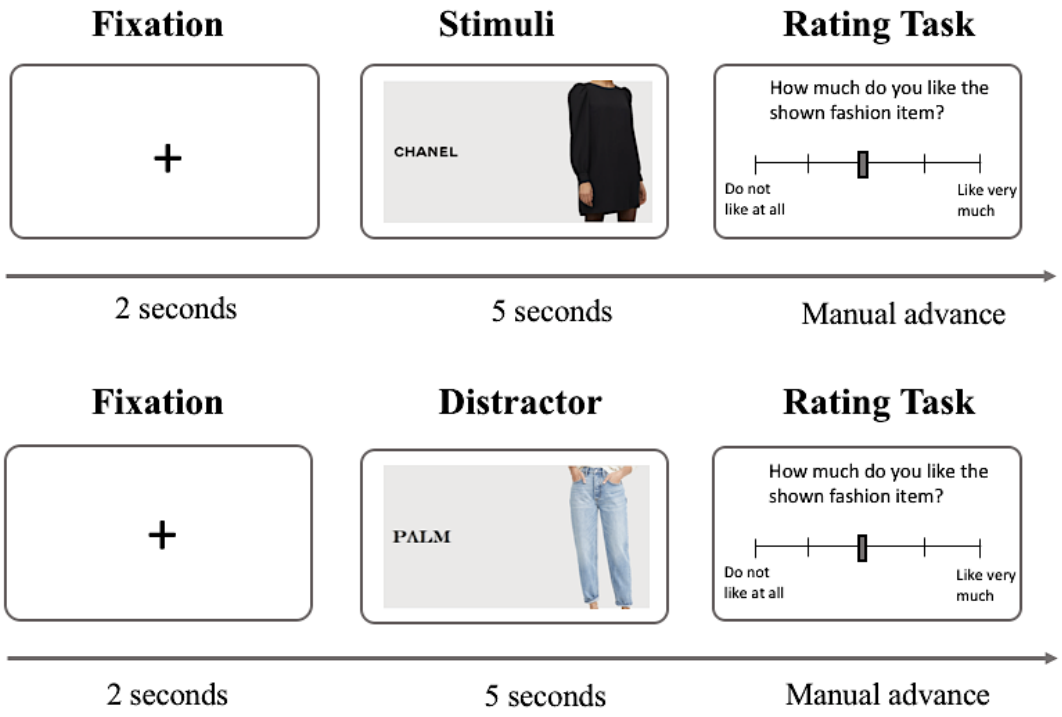

Figure 12: Example of the experiment sequence applicable for all study groups

Every advertisement the participant is exposed to (dresses and distractors) is composed in the same way. On the centered left side the brand logo or brand logo combination is shown (AOIs #1 and #2) and on the right side the model's body is shown wearing the piece of clothing (AOI #3). In order to minimize distractions, the background is kept simple and the model's head and face is cropped off so that it is not visible. The study conducted by Lindström et al. (2016) (see section 2.3.4) was used as a guideline to make sure that cropping out the model's head does not influence consumer behavior. In part one of the experiment, the test person is asked to rate the perceived product quality of the shown fashion item (including both dresses and distractors) using a 5-point Likert scale. In the second and third part of the experiment, the participant is asked about her subjective liking and wanting of the shown fashion items also using a 5-point Likert scale. The screens containing the respective question and answer scale are shown after every single advertisement. The cursor is set in the middle of the scale as a default and only after moving the cursor on the scale, the participant is able to click next and continue the experiment. The specific questions and answer scales in part one to three of the study are provided in Appendix D.

Experiment Part IV: Additional Questions

The fourth and last part of the experiment starts with an introduction screen informing the participant about having to answer a few additional questions before finishing the study. The test person's nationality and main occupation is interrogated using an answer textbox and multiple choice textboxes. Subsequently, the participant is asked about her knowledge of the shown fashion brands included in the advertisements across all three groups as well as her general shopping habits. Lastly, the subject's perception of the quality of brands shown across all test groups is examined using a 5-point Likert scale. There is no time restriction for answering the questions in this part of the study. Each screen has to be answered first in order to proceed to the next one and finish the experiment. The specific questions and answer options in part four of the study are provided in Appendix E.

4.1.1.5 Sample Population

In order to generalize the results to a wider population, the aim is to conduct the study with approximately 20 participants per study group, making up to 60 participants in total. This number is based on recommendations by members of the DNRC. It also takes into consideration that approximately 10% of participants tend to be removed from the sample due to inferior quality of eye-tracking data. The sample is intended to be composed of female participants only to minimize gender related biases, due to the independent variables being measured through product liking and wanting of shown clothing items for females. Another condition is that all participants must understand, read and speak fluent English, as this is the language the experiment is set up in. Ideally, the sample should include participants with varying demographics in regard to age, nationality, occupation and disposable income to support reliability of results across a wider population. Care is to be taken to avoid accidental homogeneity of groups, e.g. testing two groups where participants in one group are all of Danish nationality while the other group consists only of Chinese participants (Duchowski, 2007).

4.1.2 Online Survey

Moving away from the eye-tracking experiment, the following section introduces the conducted online survey as an alternative research method and highlights important methodological considerations. The adapted online study enabled large scale, quantitative data collection from participants with differing demographics in a short amount of time at low cost, making it a fitting research approach given the circumstances.

4.1.2.1 Survey Design

Due to the intent to set up the best-possible alternative for the initially planned eye-tracking experiment, the online survey was constructed based on the structure and elements of the eye-tracking study using the survey tool Qualtrics. The complete survey can be found in Appendix F. All advertising images and brand logos were transferred from the initial study. Similar to the eye-tracking experiment, participants of the online survey were evenly divided into three groups. All test persons experienced the same survey sequence, which is illustrated in Figure 13.

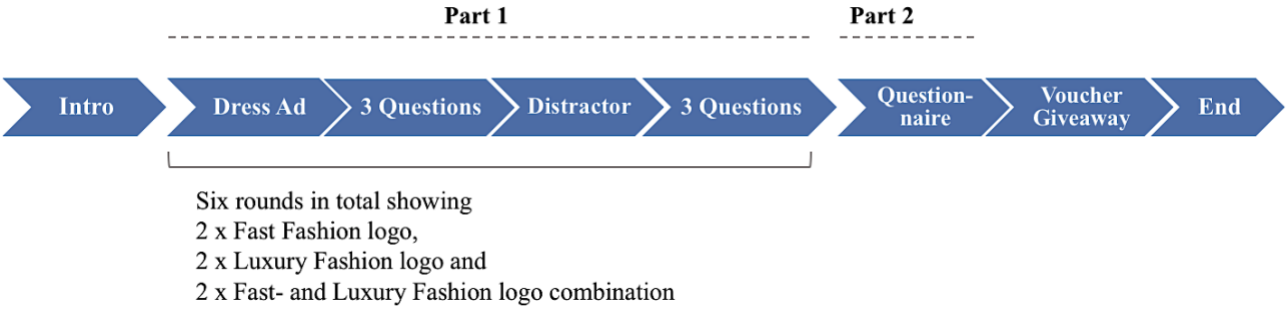

Figure 13: Overview of the survey sequence

Every survey started with an introduction page that gave instructions and an overview of what will follow. In the subsequent part 1 of the survey, every test person was presented with six fashion advertisements picturing different black dresses. Two dresses were labeled with a specific Fast Fashion logo, the other two with a specific Luxury Fashion label and the last two with a combination of the two. When the combination of logos was shown, one advertisement pictured the Luxury Fashion logo above the Fast Fashion logo, and the other one showed the reverse placement. Which specific dress was coupled with which logo(s) was varying from group to group. None of the participants saw the same fashion items twice.

Every advertisement picturing a black dress was followed by a distractor, which was an advertisement of a randomly chosen piece of clothing with a fictional single or Co-Branding logo. The fictional logos were created using the website www.namelix.com, which generates non-existent brand names. Each advertisement across all groups (black dresses and distractors) was directly followed by a screen containing a rating question. The test person was asked about their product liking, product wanting and their estimation of the product quality of the prior shown fashion item. All three questions were interrogated using a 7-point Likert scale.

After all advertisements in part 1 were viewed and respective questions answered by respondents, part 2 of the experiment was introduced, which consists of questions related to participants' brand familiarity, evaluation of brand quality, shopping habits and relationship to brands. Further, respondents were asked about their age, gender, nationality and main occupation. The answer options used in part 2 of the survey were multiple choice checkboxes with one or several answer opportunities, 7-point Likert scales and text boxes. All questions asked throughout the entire survey required an answer in order to finish. There was no time restriction to view advertisements and answer questions, hence participants could freely decide how much time they need to finish the survey. The estimated average response time was 5 minutes. Finally, the online survey was optimized for mobile use due to the fact that the survey link was planned to be shared mainly via mobile aps and social platforms like Facebook. Reports indicate that 98.2% of users visit Facebook via a mobile device (Statista, 2020b). Consequently, it was expected that most participants would answer the survey using their mobile phone. Figure 14 shows a mockup of the survey in the mobile version.

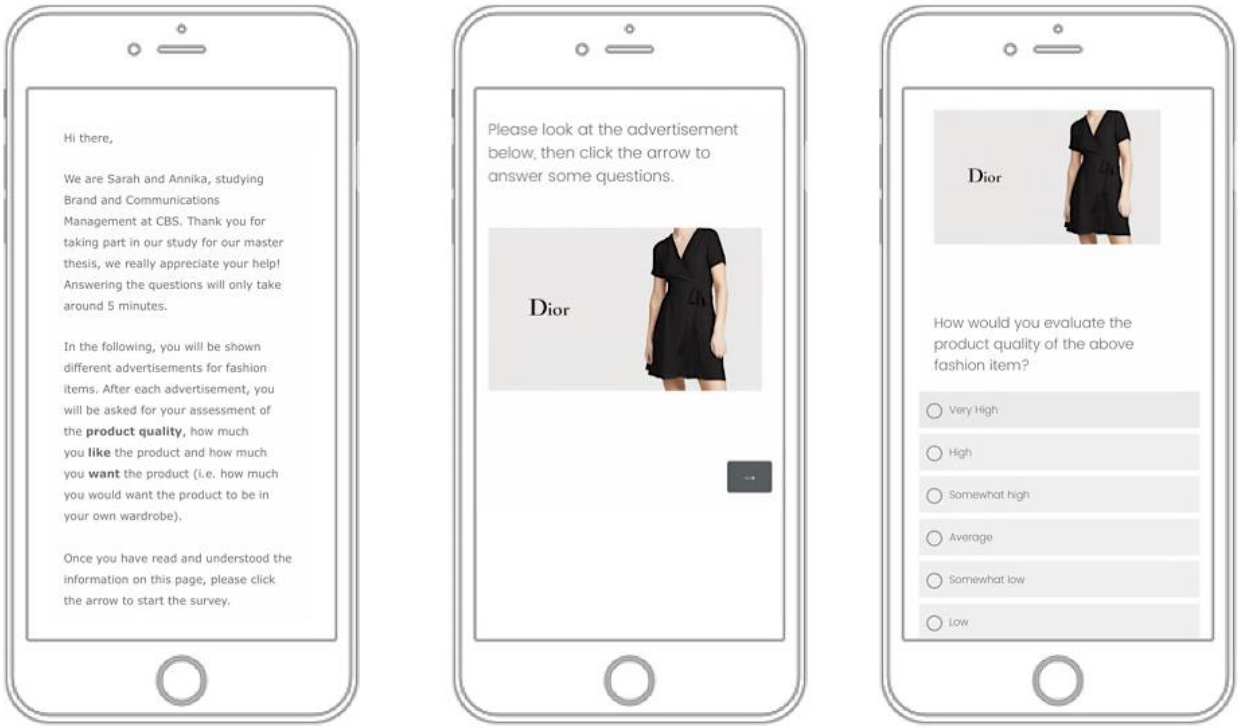

Figure 14: Mockup of the online survey viewed from a mobile device

4.1.2.2 Sampling Method

Data was collected using different non-probability sampling methods (Saunders et al., 2014). The requirements to participate in the survey were to be female as well as being able to read, understand and write in English. Convenience sampling was the main method used. Female friends, colleagues and other acquaintances received the survey link and were directly asked to participate. Further, the survey link was published in selected and closed Facebook groups which were deemed as a good source of potential participants. In order to further expand and diversify the sample, snowball sampling was utilized and participants were asked to forward the survey link to their personal and professional network to recruit new respondents fitting the required criteria. The survey was running for five days during mid-March 2020.

4.1.2.3 Pilot Test

Before distributing the survey among potential participants, a pilot test was conducted using three voluntary female respondents. Each respondent was automatically allocated to one of the three groups by the survey tool. After completing the survey, the volunteers gave valuable input in regard to user experience, mobile compatibility and formulation of questions. Taking this feedback into account, the survey was subsequently optimized and responses of the volunteers were deleted from the data pool.

4.1.2.4 Sample Population

Prior to data collection, a likely suitable sample size of 150-180 respondents was determined in agreement with the thesis supervisor, which would require 50-60 test persons per group. For this study, only females were selected for the sample to minimize participant bias, since the experiment pictured advertisements of female clothing only. The selection of women only is also reasonable when considering that the target group for Fast Fashion is mainly female (Barnes & Lea-Greenwood, 2006). This is due to the fact that women tend to purchase clothing more often in order to not miss out on latest trends and spend more money on average, which fits the Fast Fashion concept of quick production and trend replication. Women also account for a large proportion of the luxury consumer market, with four out of every five luxury purchases either being made by a woman or being controlled by a woman (Okonkwo, 2007). To stimulate survey participation among females, two vouchers worth 25€ (187 DKK) for the fashion online shop asos.com were used as an incentive. The vouchers were given away to two randomly selected participants that had entered their email address at the end of the survey for a chance to win one voucher.

4.2 Descriptive Statistics

After the survey was closed, 233 complete responses have been recorded. The data was checked for outliers, potential male participants and for whether respondents fulfil the basic requirement of fashion involvement by knowing at least four of the six Fast- and Luxury Fashion Brands used in the study (Question 14 in survey). After data cleaning was completed, 224 complete and valid responses remained for data analysis. 20 responses were saved in Qualtrics as responses in progress, which were disregarded for analysis because they have not been completed by the respective respondent. A detailed overview of the sample characteristics can be found in Appendixes G to L.

4.2.1 Demographic Attributes

All respondents included in the data analysis were female. The mean age of participants was 26.22 years old, with 88.8% of participants being between 18 and 29 years old. The majority of participants were German (42.9%), followed by Danish (20.1%) and Italian (6.3%), reflecting a mostly European nationality distribution. Overall, 33 different nationalities took part in the survey. Most of the participants were students (67.4%), reflecting the rather young mean age of the sample, followed by full-time employees (25%) as the second largest group.

4.2.2 Behavioral Attributes

Within the online survey, participants were asked how often they shop clothing for themselves and how often they shop clothing from luxury brands. The collected data indicates that most participants are low to medium shoppers, shopping once a month (45.1%) or even less than once a month (40.2 %). When it comes to purchasing clothing from Luxury brands, half of the respondents have never purchased luxury clothing before, which can be linked to the young mean age of the sample and the fact that 67.4% of participants are students without full-time employment. However, 20,5% of subjects purchase from Luxury Fashion Brands at least every year and 49,5% have purchased luxury clothing at least once.

In terms of the perceived influence of brand logos on participants' answers, 82.6% of the sample reports that they felt at least moderately influenced by the brand names, when evaluating the fashion items. 59.5% of participants answered with "much" and "very much" when asked about how much they were affected by the brand names. However, these percentages only represent the conscious evaluation of logo influence on participants. As found in extant research, much of the processing and viewing of advertisements is done on an unconscious level (Li et al., 2016; Poels & Dewitte, 2006), which is why it is likely that the

effect of logos on participants' responses is stronger than what they indicated due to subliminal logo effects. The strong impact of logos and brand information in advertisements on the unconscious mind has been demonstrated in a variety of studies (Lee & Ahn, 2012; Muscarella, Brintazzoli, Gordts, Soetens, & Van den Bussche, 2013; Yoo, 2008) and it is assumed that subliminal stimuli play a crucial role in this research.

4.2.3 Sample Population per Group

All participants were randomly and evenly allocated to one of the three survey groups by the survey tool. It is important for the comparability of results that participants in the three groups show similarly distributed attributes. Hence, an overview of attributes per survey group was created to easier spot flaws in the comparability. As Table 3 shows, the groups are fairly similar to one another based on the factors tested.

Group Nr./ Group Characteristics	Group 1	Group 2	Group 3
Number of respondents	74	76	74
Mean age	26.77	25.96	25.93
Nationality diversity	54% German 14,9% Danish	43,4% German 21,1% Danish	32,4% German 23% Danish
Main occupation	69,9% Students 24,3% Full-time employees	64,5% Students 26,3% Full-time employees	68,9% Students 24,3% Full-time employees

Table 3: Overview of demographic characteristics per survey group

4.3 Hypotheses Testing and Interpretation

The goal of the statistical analysis is to identify whether the different logo conditions (single Luxury Fashion vs. single Fast Fashion vs. Co-Branding) have a significant statistical effect on the Perceived Product Quality (PPQ), the Perceived Brand Quality (PBQ) as well as Product Liking (PL) and Wanting (PW).

In order to test the effects of the branding conditions on the PPQ (H1, H2, H3), one-way analysis of variances are executed. In case of significant F-values additional post-hoc tests using the Scheffé procedure are conducted to identify which pairs of means are significant (Huber, Meyer, & Lenzen, 2014). Thereby first a combined datasheet is used, which includes the mean ratings of the different LF and FF brands. Afterwards the effects are analyzed independently for each clothing item. The effect of the logo placement on the PPQ for the different Co-Branding alliances (H4) is analyzed using independent sample t-tests. The effects of the three Co-Branding conditions on PL and PW (H5, H6) are analyzed using the same procedure as for the effects on PPQ. In order to test for spillover effects for the brands (H7, H8), by testing the effects of the Co-Branding condition on PBQ, one-way analysis of variances are conducted for the different brands. The spillover effects are further analyzed, taking only the luxury involved participants into consideration, meaning participants who have purchased luxury goods at least once. In order to test the proposed mediation effect within the dependent variables, first, linear regression analyses are conducted for all logo conditions, in order to test the effect of PBQ on PL. Afterwards, separate mediation analyses are conducted for each of the Co-Branding alliances. The statistical analysis is conducted using the SPSS 23. In order to test the postulated mediating effects, the SPSS-macro PROCESS, developed by Hayes (2013), is used. Throughout the data analysis and testing of the hypotheses, many of the possible effects are measured for each clothing item separately using one-way ANOVAs, as described above. In the analysis following this section, the different clothing items are referred to as Dress 1, 2, 3, 4, 5 and 6. To enable a better understanding for the reader of which dress number was labeled with which brands in the advertisements, the Figure 15 presents an overview.

Figure 15: Overview of dress numbers and their branding in the advertisements

All dependent variables are reported using 7-point bipolar rating scales based on Batyrshin et al. (2017). *Perceived product quality* is operationalized by asking: "How would you estimate the quality of the above fashion item?" (7=very high, 6=high, 5=somewhat high, 4=average, 3=somewhat low, 2= low, 1=very low). Similarly, *perceived brand quality* is measured by asking: "How would you estimate the quality of brand X?" (7=very high, 6=high, 5=somewhat high, 4=average, 3=somewhat low, 2= low, 1=very low). *Product liking* is operationalized by the question: "How much do you like the above fashion item?" (7=like very much, 6=like, 5=somewhat like, 4=Neither like nor dislike, 3=somewhat dislike, 2=Dislike, 1=Dislike very much). Lastly, *product wanting* is measured the same way, by asking: "How much do you

want the above fashion item (i.e. how much do you want to have it in your own wardrobe?)" (7=want very much, 6=want, 5=somewhat want, 4=neutral, 3=somewhat don't want, 2=don't want, 1=don't want at all). Within the analysis later on in this section, the means of these ratings are reported and compared.

Before the analysis of variances and the regression analysis can be conducted, the data needs to be examined in terms of relevant assumptions (Huber et al., 2014) (Appendix M). In order to conduct a variance analysis the first premises are a randomized sample as well as a group size that exceeds 20 participants. Both premises are given in the sample. Additionally all outliers need to be removed, which was explained in 4.2. Further, a homogeneity of variances needs to be ensured in the data sample. Homogeneity of variances was asserted using Levene's Test which showed that equal variances could be assumed for almost all dependent variables (Appendix N). Finally, normal distribution of the dependent variables in the different experimental groups was asserted using the Kolmogorov Smirnov Test (Appendix O). Hereby, the premise could not be approved for all dependent variables. This could be due to the big data sample, as the Kolmogorov Smirnov test tends to show a non-normal distribution testing result if the sample size exceeds n= 200 (Smigierski, 2019). It is therefore suggested to rely on graphical methods (Smigierski, 2019). An examination of the histograms of the data shows nearly normal distribution for almost all dependent variables. Huber et al. (2014) further indicate that a violation of the normality premises as well as the homogeneity of variances can be "healed" by a roughly equal occupation of cells, meaning that in each occurring data group, the approximate same amount of participants is located. As this indication is given in the sample, the analysis can be continued. For the regression analysis the linearity of correlation as well as the variance homogeneity and normality of residuals are tested as well (Baltes-Götz, 2017). Appendix P shows an overview of which hypotheses could be accepted based on the statistical analysis and which needed to be rejected.

4.3.1 Effects of Logo Condition on Perceived Product Quality

In order to get an overarching impression of the effect, new variables were created, combining the PPQ of all dresses branded with a LF logo, the PPQ of all dresses branded with a FF logo as well as the PPQ of all Co-Branded dresses. The one-way ANOVA revealed significant differences between group means ($F(2,669)=200.957$, $p=.000$; $R_2= 0.373$). Overall 37% of variance in PPQ ratings can be explained by the logo condition. Table 4 as well as Figure 16 show the identified effects.

Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Co-Branding		Fast Fashion vs. Co-Branding	
Mean	5.71	3.90	5.71	4.79	3.90	4.79
Standard deviation	.977	1.000	.977	.898	1.000	.898
Mean difference	1.817***		.929***		.888***	
Effect size (*d*)	1.83		.98		.94	
*Mean difference is significant at p>0.001						

Table 4: Effects of logo condition on Perceived Product Quality

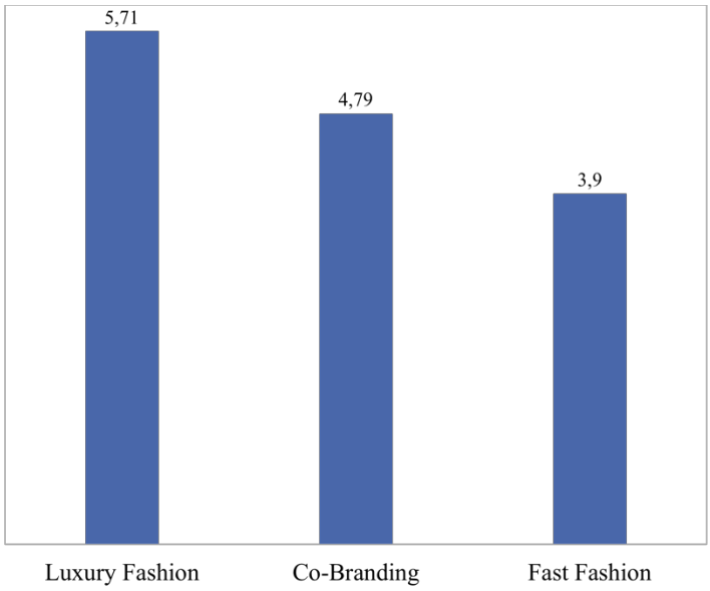

Figure 16: Effects of logo condition on PPQ (using mean ratings of PPQ for the different logo conditions across all dresses)

A post-hoc test using the Scheffé procedure further revealed that the FF condition leads to a significantly lower PPQ than the LF condition (M_{FF}=3.90, SD=1.000; M_{LF}=5.71, SD=.977). When comparing the LF as well as the FF with the Co-Branding condition, it appears that the LF logo results in a significantly higher PPQ compared to a Co-Branded logo (M_{CB} =4.79; SD=.898). A FF logo on the other hand results in a significantly lower PPQ compared to a Co-Branded logo (M_{FF}=3.90, SD=1.000; M_{CB}=4.79; SD=.898). Cohen's d (1988) is used to measure the effect sizes (Appendix Q). For the difference between LF and FF an effect size of d=1.83 is calculated, for the difference between LF and CB an effect size of d= 0.98 and for the difference between FF and CB an effect size of d=0.94 appears. According to Cohen (1988) all three effects can be classified as large effects. To accept Hypothesis 1-3, it needs to be examined whether the effect exists across all six dresses. Separate one-way ANOVAs were conducted, showing

highly significant differences in the PPQ ratings between the logo conditions across all dresses. Table 5 combines the separate ANOVA results for all dresses.

Dress	Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Co-Branding		Fast Fashion vs. Co-Branding	
1	Mean	5.86	3.99	5.86	4.97	3.99	4.97
	Standard deviation	1.102	1.039	1.102	1.020	1.039	1.020
	Mean difference	1.878***		.892***		.986***	
	Effect strength (*d*)	1.75		.84		.95	
2	Mean	5.91	4.16	5.91	5.00	4.16	5.00
	Standard deviation	.939	1.108	.939	.965	1.108	.965
	Mean difference	1.748***		.905***		.824***	
	Effect strength (*d*)	1.70		.96		.80	
3	Mean	5.68	3.51	5.68	4.33	3.51	4.33
	Standard deviation	.938	1.024	.938	1.063	1.024	1.063
	Mean difference	2.162***		1.347***		.815***	
	Effect strength (*d*)	2.21		1.35		.79	
4	Mean	5.47	3.80	5.47	4.58	3.80	4.58
	Standard deviation	1.010	.951	1.010	.997	.951	.997
	Mean difference	1.676***		.894***		.782***	
	Effect strength (*d*)	1.70		.89		.80	
5	Mean	5.45	3.78	5.45	4.77	3.78	4.77
	Standard deviation	1.321	1.024	1.321	.915	1.024	.915
	Mean difference	1.664***		.677***		.986***	
	Effect strength (*d*)	1.41		.60		1.02	
6	Mean	5.92	4.14	5.92	5.08	4.14	5.08
	Standard deviation	1.017	1.139	1.017	.933	1.139	.933
	Mean difference	1.786***		.840***		.946***	
	Effect strength (*d*)	1.65		.86		.90	

***Mean difference is significant at p>0.001
Orange = negative effect relative to single logo condition
Green = positive effect relative to single logo condition

Table 5: Effects of logo condition on Perceived Product Quality

Dress 1 and 2 were advertised with the logos of Chanel and Mango. Both dresses showed strong effects in the different PPQ ratings between the logo conditions (F_{DRESS1} (2,221)=59.580; p>0.001; R_2=0.34; F_{DRESS2} (2,221)=56.380; p>0.001;R_2=0.33). Thereby, the Co-Branding condition lead to significantly lower ratings of PPQ compared to the Chanel condition (M_{CHANEL}=5.86, SD=1.102; M_{CB}=4.97, SD=1.020 and M_{CHANEL}=5.91, SD=.939; M_{CB}=5.00, SD=.965) and to significantly higher ratings of PPQ compared to the Mango condition (M_{MANGO}=3.99, SD=1.039 and M_{MANGO}=4.16, SD=1.108). Dress 3, advertised with the brands Gucci and H&M showed the strongest effects in the difference between the groups (F_{DRESS3} (2,221)=86.505; p>0.001;R_2=0.43), this was especially due to the large difference in PPQ

between the H&M logo condition ($M_{H\&M}$=3.51, SD=1.024) and the Gucci logo condition (M_{GUCCI}=5.68, SD=.938). Compared to the Gucci condition, the Co-Branding condition was thereby rated much lower (M_{CB}=4.33, SD=1.063). Dress 4 however, that was also advertised with Gucci and H&M logos, showed less strong effects in the differences of PPQ (F_{DRESS4} (2,221)=53.494; p>0.001;R_2=0.32). Here the Co-Branded product resulted in a higher rating of PPQ (M_{CB}=4.58, SD=.997), however still significantly lower than in the Gucci logo condition (M_{GUCCI}=5.47, SD=1.010).

Finally, dresses 5 and 6, advertised with the brands Dior and ZARA showed strong effects in the different logo conditions as well (F_{DRESS5} (2,221)=43.136; p>0.001;R_2=0.27; F_{DRESS6} (2,221)=56.105; p>0.001;R_2=0.33). Clothing item 6 showed the highest rating in PPQ for the Co-Branding condition compared to all other dresses (M_{CB}=5.08, SD=.933), even though the mean separate ratings of PPQ for the two brands were not the highest, compared to the other brands.

Overall, Cohen's d revealed medium to large effects for all dresses. It can be concluded that FF, LF and Co-Branded logos have significantly different effects on the evaluation of PPQ, which could be shown across different clothing items and brands. Thereby, the FF logo leads to a lower rating in PPQ than a LF logo. At this point, **H1** can therefore be accepted. Further, the same product is perceived of higher quality, when including a LF and FF logo, compared to when it only includes a FF logo. Conversely, the same product is rated lower in quality when the advertisement includes a combination of LF and FF logos compared to when it only includes a LF logo. These findings lead to the acceptance of **H2** and **H3**. An additional insight can be gained through the observation of variations in the strength of the differences in PPQ ratings. By consistent logos, but varying dresses, the quality ratings appear to be different. This suggests that the dress itself could be an important indicator of PPQ as well.

4.3.2 Effects of Logo Placement on Perceived Product Quality

In order to test the effects of the placement of logos in the Co-Branding condition, independent-samples t-tests were conducted to compare the PPQ when the LF logo was placed above with the PPQ when the LF logo was placed below for the three different collaboration conditions. Based on the reviewed literature (2.1.3) it was thereby expected that if the LF logo would be placed above the FF logo, the resulting perceived product quality would be higher compared to reversed location. Contrary to the proposed effects, the current study found that the perceived product quality was actually higher in the condition where the LF logo was placed below the FF logo. However, the effects were not significant for two out of the three Co-Branding alliances. Table 6 depicts the results.

For Chanel and Mango there was a difference in the scores of PPQ for the LFABOVE ($M_{LFABOVE}$=4.97, SD=1.020) and the LF_{BELOW} condition ($M_{LFBELOW}$=5.00, SD=.965), however, the difference was not significant (t(146)=.166, p=.869). In the case of Gucci and H&M logos, the scores for PPQ differed non-significantly as well (t(146)=1.366, p=.174), with lower means for the LF_{ABOVE} condition ($M_{LFABOVE}$=4.35, SD=1.065) than for the LF_{BELOW} condition ($M_{LFBELOW}$=4.58, SD=.979). Only in the case of Dior and Zara there was a significant and medium effect in the difference of ratings for PPQ for the LF_{ABOVE} and the LF_{BELOW} conditions (t(146)=2.046, p=.0443, d=.335). Based on these findings, **H4** has to be rejected.

Co-Branding Partnership	Measures	Luxury Fashion Above	Luxury Fashion Below
Chanel Mango	Mean	4.97	5.00
	Standard deviation	1.020	.965
	Mean difference	.027	
	Effect size (*d*)	.03	
Gucci H&M	Mean	4.35	4.58
	Standard deviation	1.065	.979
	Mean difference	.230	
	Effect size (*d*)	.22	
Dior Zara	Mean	4.77	5.08
	Standard deviation	.915	.933
	Mean difference	.311*	
	Effect size (*d*)	.335	
Green= positive effect relative to Luxury Fashion Above condition			

Table 6: Effects of logo placement on Perceived Product Quality

4.3.3 Effects of Logo Condition on Product Liking

The analysis of the effects of the logo condition on PL was conducted equally to the analysis of the effects on PPQ. First the overall effect was analyzed using the combined variables. The one-way ANOVA revealed significant, however small differences between group means (F(2,669)=6.420, p=.002, R_2=0.016). Overall, only 1,6% of variance in PL ratings can be explained by the logo condition. Table 7 as well as Figure 17 show the identified effects.

Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Co-Branding		Fast Fashion vs. Co-Branding	
Mean	5.00	4.66	5.00	4.74	4.66	4.74
Standard deviation	1.062	1.041	1.062	1.048	1.041	1.048
Mean difference	.342**		.257*		.085	
Effect size (*d*)	.32		.24		.07	
* Mean difference is significant at p< 0.05 **Mean difference is significant at p<0.01 Orange = negative result relative to single logo condition Green = positive effect relative to single logo condition						

Table 7: Effects of logo condition on Product Liking

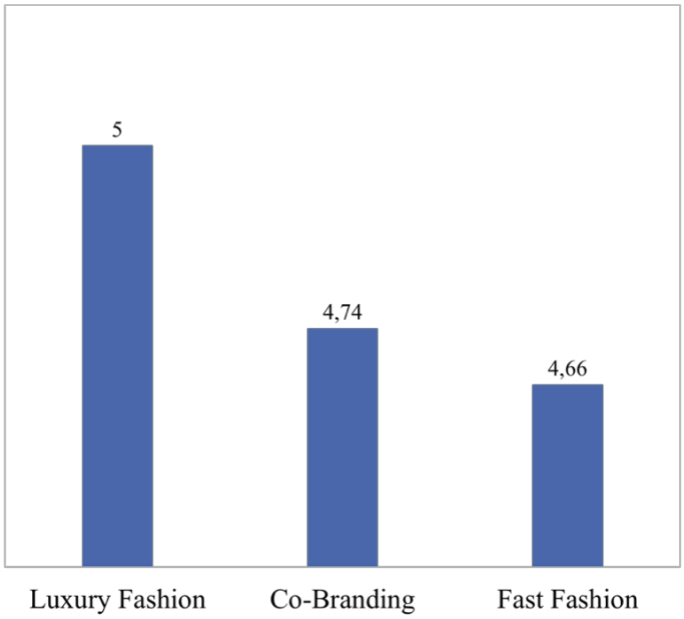

Figure 17: Effects of logo condition on Product Liking (using mean ratings of PPL for all different logo condition across all dresses)

The post-hoc test revealed that the FF condition leads to a significantly lower PL than the LF condition (M_{FF}=4.66, SD=1.041; M_{LF}=5.00, SD=1.062). When comparing the LF with the CB logo condition, it appears that the LF logo results in a significantly higher PL compared to a Co-Branded logo (M_{CB}=4.74; SD=1.048). The effect can be classified as a medium effect. The difference in PL between the FF condition and the CB condition, however, showed non-significant effects. Here the CB condition showed slightly higher ratings in PL than the FF condition (M_{FF}=4.66, SD=1.041; M_{CB}=4.74; SD=1.048). At this point **H5** could already be rejected, however a closer analysis was conducted in order to identify the effects across all examined dresses.

Separate one-way ANOVAs were conducted, showing mostly non-significant differences in the PL ratings between the logo conditions across all clothing items. Table 8 combines the ANOVA results for all items.

Dress	Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Collaboration		Fast Fashion vs. Collaboration	
1	Mean	4.89	4.62	4.89	4.72	4.62	4.72
	Standard deviation	1.540	1.414	1.540	1.360	1.414	1.360
	Mean difference	.273		.176		.098	
	p-value	.510		.760		.917	
2	Mean	5.42	4.93	5.42	5.12	4.93	5.12
	Standard deviation	1.135	1.279	1.135	1.122	1.279	1.122
	Mean difference	.485*		.297		.187	
	p-value	.045 (d=.40)		.312		.625	
3	Mean	4.95	4.36	4.95	4.74	4.36	4.74
	Standard deviation	1.084	1.429	1.084	1.300	1.429	1.300
	Mean difference	.581*		.209		.372	
	p-value	.023 (d=.41)		.607		.207	
4	Mean	5.08	4.84	5.08	4.71	4.84	4.71
	Standard deviation	1.225	1.535	1.225	1.522	1.535	1.522
	Mean difference	.243		.371		.127	
	p-value	.589		.289		.863	
5	Mean	4.86	4.96	4.86	4.82	4.96	4.82
	Standard deviation	1.392	1.128	1.392	1.077	1.128	1.077
	Mean difference	.104		.031		.135	
	p-value	.870		.988		.794	
6	Mean	4.82	4.23	4.82	4.35	4.23	4.35
	Standard deviation	1.564	1.330	1.564	1.583	1.330	1.583
	Mean difference	5.86		.464		.122	
	p-value	.059		.167		.885	
* Mean difference is significant at p<0.05							

Table 8: Effects of logo condition on Product Liking

Dress 1 (Chanel and Mango) showed non-significant differences in PL ratings between the logo conditions (F_{DRESS1} (2,221)=.693; p=.50; R_2=.003). Dress 2 however, which was advertised with the same logo combination, revealed a significant, however small overarching effect (F_{DRESS2} (2,221)=3,202; p=.043;R_2=0.19). The post-hoc test revealed that only the difference between the LF and FF condition led to a significant and medium sized effect (M_{CHANEL}=5.42, SD=1.135; M_{MANGO}=4.62, SD=1.414). Compared to the CB condition (M_{CB}=5.12, SD=1.122), the LF condition led to higher ratings in PPQ and the FF condition led to lower ratings in PPQ, however the effects did not reach an alpha level of .05. Dress

3 (Gucci and H&M), revealed a significant and medium sized effect in the differences of all three logo conditions (F_{DRESS3} (2,221)=3.919; p=.021;R_2=0.26). Equally to dress 2, only the difference between the LF and the FF condition showed a significant effect (M_{GUCCI}=5.08, SD=1.225; $M_{H\&M}$=4.36, SD=1.429). Dress 4 however, revealed non-significant effects (F_{DRESS4} (2,221)=1.287; p=.278;R_2=.003). Dress 5 (Dior and Zara), revealed a non-significant effect (F_{DRESS5} (2,221)=.254; p=.776;R_2=.007), while dress 6 revealed an overall significant, but small effect (F_{DRESS6} (2,221)=3.212; p=.042;R_2=.019). The effect was however not visible, when examining the differences in the logo conditions separately. Overall, there were higher ratings in PL in the LF condition compared to the CB condition. Conversely, there were slightly lower ratings in PL in the FF condition compared to the CB condition. While the first part is opposed to what was proposed by **H5**, the last part is in line with it. Thus, the Co-Branded product leads to a greater liking compared to a Fast Fashion product, however it leads to a lower liking than a Luxury Fashion product. As the effects do not reach the significance level of .05, **H5** needs to be rejected.

4.3.4 Effects of Logo Condition on Product Wanting

The overall effect was analyzed using the combined variables. A one-way ANOVA revealed non-significant differences between group means (F(2,669)= 2.263, p=.105, R_2=.004). Overall, only 0.4% of variance in PL ratings can be explained by the logo condition. Table 9 as well as Figure 18 show the identified effects.

Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Co-Branding		Fast Fashion vs. Co-Branding	
Mean	4.04	3.85	4.04	4.09	3.85	4.09
Standard deviation	1.357	1.291	1.357	1.241	1.291	1.241
Mean difference	.194		.054		.248	
p-value	.286		.909		.130	

Table 9: Effects of logo condition on Product Wanting

Interestingly, the wanting for the CB dress appears to be highest in relation to the Luxury Fashion and the Fast Fashion condition. Overall, however, the wanting appears to be lower than the liking for the dresses (M_{CB_L}=4.74, SD=1.048; M_{CB_W}=4.09, SD=1.241). Separate one-way ANOVAs were conducted, showing mostly non-significant differences in the PW ratings between the logo conditions across all dresses, which can be found in Table 10.

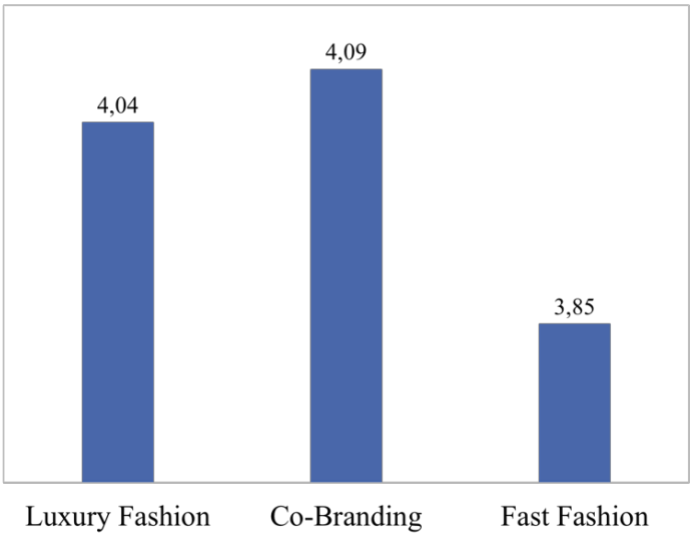

Figure 18: Effects of logo condition on Product Wanting (using mean ratings of PPW for the different logo conditions across all dresses)

Dress	Measures	Luxury Fashion vs. Fast Fashion		Luxury Fashion vs. Collaboration		Fast Fashion vs. Collaboration	
1	Mean	4.04	3.80	4.04	4.04	3.80	4.04
	Standard deviation	1.716	1.641	1.716	1.557	1.641	1.557
	Mean difference	.238		.000		.238	
	p-value	.674		1.000		.674	
2	Mean	4.47	4.22	4.47	4.18	4.22	4.18
	Standard deviation	1.607	1.654	1.607	1.616	1.654	1.616
	Mean difference	.249		.014		.236	
	p-value	.638		.999		.669	
3	Mean	3.85	3.55	3.85	4.18	3.55	4.18
	Standard deviation	1.505	1.648	1.505	1.324	1.648	1.324
	Mean difference	.297		.333		.630* (*d*=.42)	
	p-value	.483		.397		.038	
4	Mean	4.18	4.04	4.18	4.12	4.04	4.12
	Standard deviation	1.616	1.700	1.616	1.681	1.700	1.681
	Mean difference	.135		.057		.078	
	p-value	.885		.978		.960	
5	Mean	3.74	4.28	3.74	4.19	4.28	4.19
	Standard deviation	1.586	1.601	1.586	1.459	1.601	1.459
	Mean difference	.547		.452		.095	
	p-value	.099		.205		.933	
6	Mean	3.97	3.16	3.97	3.57	3.16	3.57
	Standard deviation	1.804	1.605	1.804	1.776	1.605	1.776
	Mean difference	.812* (*d*=.47)		.406		.405	
	p-value	.018		.358		.364	

*Mean difference is significant at p< .05
Green = positive result relative to single logo condition

Table 10: Effects of logo condition on Product Wanting

Dress 1 (Chanel and Mango) showed non-significant differences in PW ratings between the logo conditions (F_{DRESS1} (2,221)=.529; p=.50; R^2=.005). Especially the differences between the single logo condition and the CB condition was only marginal (M_{CHANEL}=4.04, SD=1.716; M_{MANGO}=3.80, SD=1.641; M_{CB}=4.04, SD=1.557). The same tendency was visible in terms of dress 2 (F_{DRESS2} (2,221)=.572; p=.56; R^2=.005). Here however, the general wanting was higher across all conditions (M_{CHANEL}=4.47, SD=1.607; M_{MANGO}=4.22, SD=1.654; M_{CB}=4.18, SD=1.616)

Dress 3 (Gucci and H&M), revealed a significant model, showing a small effect in the differences between the logo conditions (F_{DRESS3} (2,221)=3.328; p=.038;R^2=0.20). The post-hoc test revealed that only the difference between the FF logo and the CB logo showed a significant mean difference ($M_{H\&M}$=3.55, SD=1.648; M_{CB}=4.18, SD=1.324), with the CB logo condition revealing significantly higher results in PW. Interestingly, the CB logo condition was also higher than the LF logo condition (M_{GUCCI}=3.85, SD=1.505). Dress 4 however, showed a non-significant model (F_{DRESS4} (2,221)=.123; p=.885;R^2=.001).

Dress 5 (Dior and Zara) revealed non-significant effects as well (F_{DRESS5} (2,221)=2.677; p=.071;R^2=.024), while dress 6, advertised by the same brand logos showed a significant model, but with a small effect (F_{DRESS6} (2,221)=4.121; p=.017;R^2=.036). The effect was significant in the difference between the LF and the FF condition, showing significantly higher rates in PW in the LF condition (M_{DIOR}=3.97, SD=1.804; M_{ZARA}=3.16, SD=1.605).

Overall, in the majority of cases (4/6) the CB condition showed higher ratings in PW compared to the FF condition. In some of the cases the PW ratings in the CB condition were even higher compared to the LF conditions. However, the majority of effects were not significant. Based on these findings **H6** needs to be rejected.

4.3.5 Effects of Logo Condition on Perceived Brand Quality

In order to test whether the different branding conditions have an effect on the PBQ of the brands, separate one-way ANOVAs were conducted, comparing the ratings of PBQ for the different branding conditions for each brand. Thereby every brand had a condition where it was not advertised, a condition where it was advertised with a single logo as well as a condition where it was advertised with a Co-Branded logo. Table 11 shows the results.

For Chanel, the differences between the logo conditions showed non-significant effects (F_{CHANEL} (2,221)=.393; p=.676;R_2=.004). Interestingly, the CB condition resulted in higher ratings for PBQ compared to the "advertised single" and the "not advertised" condition (M_{CS}=6.36, SD=.860; M_{CN}=6.36, SD=.786; M_{CCB}=6.46, SD=.725).

The variances in PBQ for Gucci revealed a non-significant model as well (F_{GUCCI} (2,221)=2.330; p=.100;R_2=.012). Here however, the mean ratings in PBQ were visibly lower for the CB condition compared to "advertised single" condition, however higher compared to the "not advertised" condition (M_{GS}=6.32, SD=.846; M_{GN}=6.01, SD=.944; M_{GCB}=6.09, SD=.941). This effect was also visible, however not significant, for the luxury brand Dior (F_{DIOR}(2,221)=1.225; p=.296;R_2=.011). However here, the PBQ in the CB condition appeared lower not only compared to the "advertised single" condition, but also compared to the "not advertised condition (M_{DS}=6.26, SD=.870; M_{DN}=6.38, SD=.789; M_{DCB}=6.16, SD=.861).

The PBQ differences for the Fast Fashion brand H&M revealed a significant model, with a small effect size ($F_{H\&M}$(2,221)=6.841; p=.001;R_2=.058). The post-hoc test revealed a significant medium sized effect in the difference between the "not advertised" and the "advertised single" condition (M_{HN}=2.99, SD=.986; M_{HS}=3.49 SD=.798). Further there was a significant medium effect in the difference between the "advertised single" and the CB condition, with the CB condition resulting in a significantly lower rating for PBQ (M_{HCB}=2.97, SD=1.083).

For Mango, the ANOVA revealed non-significant effects between the three logo conditions (F_{MANGO}(2,221)=2.130; p=.121;R_2=.019). Contrarily to the effects found with H&M, here the CB condition resulted in higher ratings for PBQ than the "advertised single" condition (M_{MS}=3.75, SD=1.109; M_{MCB}=3.89, SD=1.130).

Finally, the PBQ differences in the three logo conditions for ZARA revealed a significant model (F_{ZARA}(2,221)=3.621; p=.028;R_2=.032). The post-hoc test revealed that this was due to the CB condition reaching significantly higher results in PBQ compared to the not advertised results (M_{ZN}=3.42, SD=1.062; M_{ZCB}=3.86, SD=.941). The CB condition further revealed higher, but non-significant results in PBQ than the "advertised single" condition (M_{ZS}=3.69, SD=1.046).

Brand	Measures	Not Advertised vs. Advertised Single		Not Advertised vs. Co-Branded		Advertised Single vs. Co-Branded	
Chanel	Mean	6.36	6.36	6.36	6.46	6.36	6.46
	Standard deviation	.786	.860	.786	.725	.860	.725
	Mean difference	.010		.104		.095	
	p-value	.997		.724		.769	
Gucci	Mean	6.01	6.32	6.01	6.09	6.32	6.09
	Standard deviation	.944	.846	.944	.941	.846	.941
	Mean difference	.311		.079		.232	
	p-value	.119		.870		.298	
Dior	Mean	6.38	6.26	6.38	6.16	6.26	6.16
	Standard deviation	.789	.870	.789	.861	.870	.861
	Mean difference	.115		.216		.101	
	p-value	.704		.296		.763	
H&M	Mean	2.99	3.49	2.99	2.97	3.49	2.97
	Standard deviation	.986	.798	.986	1.083	.798	1.083
	Mean difference	.500** (*d*=.56)		.013		.513** (*d*=.55)	
	p-value	.008		.997		.006	
Mango	Mean	4.11	3.75	4.11	3.89	3.75	3.89
	Standard deviation	.959	1.109	.959	1.130	1.109	1.130
	Mean difference	.358		.216		.142	
	p-value	.124		.470		.719	
Zara	Mean	3.42	3.69	3.42	3.86	3.69	3.86
	Standard deviation	1.062	1.046	1.062	.941	1.046	.941
	Mean difference	.268		.444* (*d*=.44)		.176	
	p-value	.274		.030		.577	

*Mean difference is significant at p>0.05
**Mean difference is significant at p>0.01
***Mean difference is significant at p>0.001
Orange = negative result relative to single logo condition
Green = positive result relative to single logo condition

Table 11: Effects of logo condition on PBQ

It can be concluded that the CB condition revealed mostly lower results in PBQ compared to the "single advertised condition" for LF brands, and higher results in PBQ for the FF brands, which is in line with **H7** and **H8**. When only observing actual Luxury shoppers (defined as participants that have purchased Luxury clothing) the negative effect for Luxury brands appears even stronger. Additionally, it can be observed that PBQ differs for the "advertised single" condition compared to the "not advertised" condition. This could indicate that the participants take valuable information for their evaluation of PBQ from the dress itself.

4.3.6 Relationship between Perceived Brand Quality, Perceived Product Quality and Product Liking

In order to test the proposed relationship between the dependent variables PBQ, PPQ and PL, first separate regression analyses are conducted to test whether PBQ can be identified as a significant predictor for PL (H9). Afterwards, separate mediation analyses are used to identify whether this effect can be explained by the perceived product quality of the particular dress.

4.3.6.1 Effects of Perceived Brand Quality on Product Liking

The one-way ANOVA in 4.4.3 revealed significant higher ratings in the liking of a dress when advertised with a LF logo compared to when it was advertised with a FF logo, even though the effect could not be shown across all fashion items. As LF brands are perceived as having a generally higher quality compared to FF brands (Table 11), the effect of PBQ on PL was analyzed separately for LF and FF, to see whether PL can be predicted by PBQ. The results can be found in Table 12. A bivariate linear regression analysis revealed a significant but small effect between PBQ and PL for FF brands ($F(2,222)=4.552$; $p=.034$;$R_2=.020$). PBQ could be identified as a significant predictor for PL, with a small to medium effect (ß=.142; t=2.134; p=.034). For LF brands, the linear regression revealed a significant, small effect between PBQ and PL as well ($F(2,222)=14.546$; $p=.000$;$R_2=.061$). PBQ could be identified as a significant predictor for PL, indicating that the higher the brand quality, the higher the liking of the dress. The effect can thereby be classified as medium, indicating that for LF, PBQ could be a more important predictor for PL (ß=.248; t=3.814; p=.000). Finally, for CB dresses, a similar effect could be revealed ($F(2,222)=47.381$; $p=.000$;$R_2=.176$), with a medium effect strength as well (ß=.419; t=6.883 p=.000).

Brand	Variable	Coefficients (not standardized)		Coefficients (standardized)	R-squared	F (1,222)
		Regression coefficient *B*	Standard error	*Beta*		
Fast Fashion	Constant	4.028***	.304	.142	.020	4.552**
	PBQ FF	.177**	.083			
Luxury Fashion	Constant	2.893***	.557	.248	.061	14.546***
	PBQ LF	.336***	.088			
Co-Branded	Constant	1.291***	.506	.419	.176	47.381***
	PBQ CB	.702***	.102			
*F-value is significant at p>0.05 **F-value is significant at p>0.01 ***F-value is significant at p>0.001						

Table 12: Effects of Perceived Brand Quality on Product Liking for different branding conditions

In order to examine whether the identified effects hold true when examining the three different CB alliances, separate regression analyses were conducted. Thereby, the mean PBQ of the respective FF and LF brand were used as a predictor and the PL rating of the corresponding dress as a regressor. Table 13 shows the identified effects. In all cases, except for one CB alliance, PBQ could be identified as a relevant predictor for PL. Dress 1 (Chanel and Mango) revealed a significant effect of PBQ on PL ($F(1,72)=7.753$; $p=.007$;$R_2=.097$), with a medium effect size (ß=.312; t=2.784; p=.007). Dress 2 (Chanel and Mango) showed a similar regression model, identifying PBQ as predictor for PL ($F(1,72)=8.907$; $p=.004$;$R_2=.110$), and indicating a medium effect size (ß=.332, t=2.984, p=.004). Dress 3 (Gucci and H&M) showed a non-significant regression model ($F(1,72)=1.042$; $p=.274$;$R_2=.016$), while the regression analysis in the case of dress 4 (Gucci and H&M) revealed a significant effect ($F(1,72)=8.932$; $p=.004$;$R_2=.108$), that can be classified as medium-sized effect (ß=.328; t=2.989; p=.004). Finally, for dress 5 (Dior and Zara) a significant regression model could be identified as well ($F(1,72)=9.116$; $p=.004$;$R_2=.112$), with a medium-sized strength of effect (ß=.335, t=3.019, p=.004). Dress 6 (Dior and Zara) showed a similar effect model ($F(1,72)=11.705$; $p=.001$;$R_2=.140$), with a little stronger effect size (ß=.374, t=3.421, p=.001).

Co-Branding	Variable	Coefficients (not standardized)		Coefficients (standardized)	R-squared	F (1,72)
		Regression coefficient *B*	Standard error	*Beta*		
Dress 1 Chanel Mango	Constant	1.722	1.086	.312	.097	7.753**
	PBQ Chanel/Mango	.579**	.208			
Dress 2 Mango Chanel	Constant	2.493**	.890	.332	.110	8.907**
	PBQ Chanel/Mango	.508**	.170			
Dress 3 Gucci H&M	Constant	3.778***	.883	.127	.016	1.212
	PBQ Gucci/H&M	.211	.192			
Dress 4 H&M Gucci	Constant	1.810	.985	.328	.018	8.932**
	PBQ Gucci/H&M	.640**	.214			
Dress 5 Dior Zara	Constant	2.045*	.928	.335	.112	9.116**
	PBQ Dior/ZARA	.554**	.184			
Dress 6 Zara Dior	Constant	-.203	1.342	.374	.140	11.705**
	PBQ Dior/ZARA	.908**	.266			

*Mean difference is significant at p>0.05
**Mean difference is significant at p>0.01
***Mean difference is significant at p>0.001

Table 13: Effects of Perceived Brand Quality on Product Liking for the different Co-Branding advertisements

It can be concluded that PBQ can be identified as a relevant predictor for PL. However, it needs to be noted that the explanatory contribution is still quite small, with R_2 ranging from .016 to .140. It could further be observed that in the conditions in which the LF brand was placed below the FF brand PBQ was revealed as a stronger predictor for PL.

4.3.6.2 Mediating Effect of PPQ between PBQ and PL

The SPSS macro PROCESS by Hayes (2013) is used to test the proposed mediating effect of PPQ in the relationship between PBQ and PL. In 4.3.5 a linear regression revealed PBQ as a significant predictor for PL. In the following it will be tested to what extent PPQ can explain this effect. To test for the postulated mediating effect, model 4 of Hayes (2013) regression analysis is chosen, with Bootstrap-Samples of 10.000. Figure 19 illustrates the regression model combining the FF conditions, including the total (*c*), direct (*c'*) and indirect (*ab*) effect. The total effect includes the effect via the mediator, while the direct effect describes the effect when controlling for the mediating effect. The regression coefficient *a* describes the regression from PPQ on PBQ, while the regression coefficient *b* describes the regression from PL on PPQ. Considering effect sizes, Cohen (1988) describes a coefficient of .14 as a small effect, .39 as medium and .59 as large. In order for the mediation effect to be valid, the direct effect (c') of PBQ on PL should be small or not significant. Further, the bootstrap interval of the indirect effect needs to exclude zero (Baltes-Goetz, 2017).

The regression from PPQ on PBQ shows a positive, significant and large regression coefficient (*a*=.5760, p=.000), indicating that PBQ is a significant predictor for PPQ. At the same time the regression of PL on PPQ shows a significant and positive effect (*b*=.3254, p=.000). The indirect effect over PPQ is therefore positive and significant because the bootstrap interval excludes zero (*ab*=.1874 [.0957; 2927]). The direct effect is very small, not significant and even negative (*c'*=-.0109, p=.9087). The total effect is significant (*c*=.1766, p=.0305).

Figure 20 illustrates the regression model for the LF conditions. Here the regression from PPQ on PBQ shows a positive, significant and large regression coefficient (a=.6284; p=.000). The regression of PL on PPQ shows a positive, significant and large effect as well (*b*=.6024; p=.000). The indirect effect is therefore also positive and significant (*ab*=.3786 [.2641; .5017]). It is further larger than the effect in the FF condition. The direct effect is very small and not significant either (*c'*=-.0423; p=.6043), while the total effect is significant (*c*=.3362; p=.0002). The results of both conditions indicate the existence of a full mediation, indicating that the effect of the PBQ on PL only exists because the dress is perceived of high

quality. Thereby the total effect is higher in the LF condition, indicating that the PBQ is a more important indicator for PL than in the FF condition.

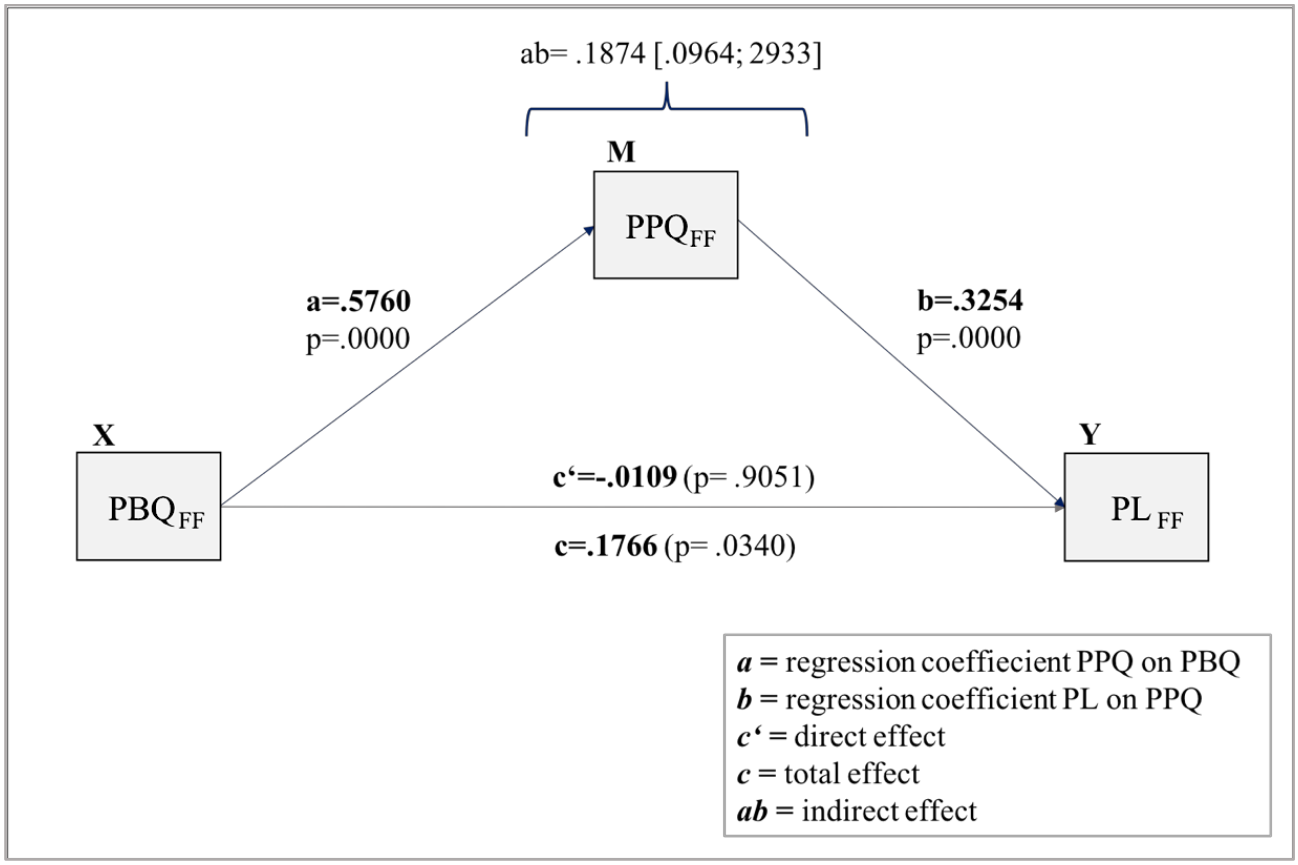

Figure 19: Effect of PBQ on PL via PPQ (Fast Fashion)

Turning to the effects within the CB condition, 4.3.5 has revealed separate total effects for PBQ on PL, for every dress except for dress 3. As the existence of a total effect is, as many researchers argue (Baltes-Götz, 2017) an important prerequisite of a mediation, it seems relevant to analyze the mediation effects in the CB condition separately. Dress 3 is hereby excluded from the analysis. All remaining models show the existence of a mediation effect, where the direct effect shows non-significant results, while the total effect exists via the indirect path over PPQ. Appendixes R to W illustrate the regression models for the different CB-alliances. Dress 1 and 2 (Chanel and Mango) show full mediations with indirect effects of *ab1*=.2872 [.0539; .5329] and *ab2*=.2548 [.0533; .4807]. Dress 4 shows a partial mediation (Urban & Mayerl, 2018) as the direct effect is almost significant (*c'*=.4049; p=.0572), however the total effect exceeds the direct effect (*c*=.6399; p=.0149), with an indirect effect of *ab*=.2351 [.0133; .4904]. Finally, dress 5 and 6 (Dior and Zara) reveal full mediation effects as well, with positive and strong indirect effects of *ab1*=.3727 [.1807; .6917] and *ab2*=.3937 [.1219; .8169].

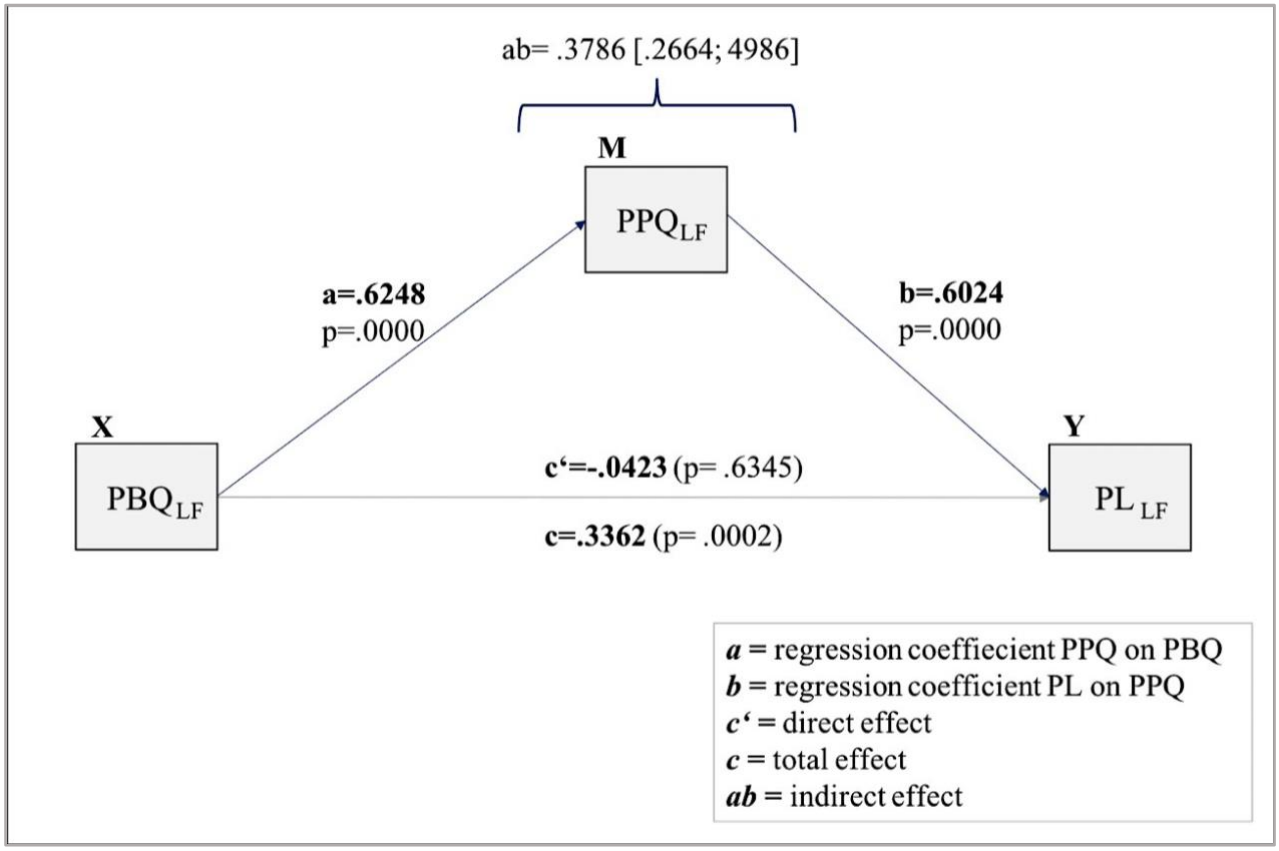

Figure 20: Effect of PBQ on PL via PPQ (Luxury Fashion)

5. Discussion

The goal of the paper was to identify how logos in FF and LF Co-Branding advertisements influence consumers' perceived product and brand quality, as well as their product liking and wanting. In the following, the results of the analysis will be discussed, considering the theoretical background and the proposed research framework.

5.1 Effects of Fashion Logos on Product Quality Perception

Based on the reviewed literature, brand names and logos can serve as extrinsic cues for evaluating the quality of a product (Richardson et al., 1994). Thereby Luxury brand logos are likely to indicate higher quality than Fast Fashion logos (e.g. Kapferer & Bastien, 2009). The current study therefore suggested that a product advertised with a Luxury Fashion logo would lead to a higher perceived product quality than the same product advertised with a Fast Fashion logo. The authors found evidence that confirms this suggestion. A product advertised with the logos of the Fast Fashion brands H&M, Mango or Zara was perceived of significantly lower quality than the same product advertised with the Luxury Fashion Brands Gucci, Chanel or Dior. Product quality is connected to overall perceived quality as an important factor in Aaker's (1991) brand equity model. The results of the conducted online experiment indicate that consumers have predefined and strong images of brands in their minds that are associated with different levels of quality. This is in line with the notion of Vigneron and Johnson (2004) who highlight the importance of creating a decisive brand image that reflects premium quality, allowing to charge a premium price. The results suggest that consumers use logos as extrinsic cues for evaluating the quality of a product, based on predefined images about the brands, which coincides with traditional marketing theory of Richardson et al. (1994) as well as eye-tracking research by Stanley and Elrod (2014).

Further, the results indicate that the same product advertised as a Co-Branded product of a Fast Fashion brand with a Luxury Fashion brand is perceived of higher quality relative to single Fast Fashion branding and of lower quality relative to Luxury Fashion branding. This effect could be shown across all fashion items. For Fast Fashion brands this indicates that they can enhance the quality perception of the Co-Branded product by partnering with luxury brands. For luxury brands on the other hand, a Co-Branded product means forfeiting on the usual quality perception of their products.

When looking at the different Co-Branding alliances, the Co-Branding between Mango and Chanel as well as Dior and Zara received visibly higher ratings in product quality, compared to the alliance between H&M and Gucci. This is possibly due to the fact that H&M branded products received the lowest overall

quality ratings compared to the other Fast Fashion brands. Despite the large undeniable branding effects, there were smaller differences between the perceived product quality of the different products that were branded similarly. The fact that there were no other indicators for quality except for the logos and the product suggests that the product itself functions as an important quality indicator as well.

Placement of Logos

In the course of analyzing the effect of the logo conditions on perceived product quality, it was also examined whether the placement of the logo would have an influence on the quality evaluation. Literature has indicated that a logo which is presented in the upper half of an advertisement tends to increase its saliency and hence attracts more visual attention than a logo placed in the lower half (Kroeber-Riel & Barton, 1980). It was therefore argued that the placement of the LF logo above the FF logo would lead to a higher evaluation of product quality than the LF logo placed below. The current study, however, found a reversed effect. In fact, the perceived product quality was higher in the condition where the LF logo was placed below, not above the FF logo. There are several explanations that could have led to these results. The most reasonable one is that in most of the past Co-Branding alliances between FF and LF brands, the FF brand has been the parent brand, while the LF brand has been the participating one (Labbrand, 2011). Hereby, the LF brand was mostly placed below the FF brand in advertisements.

The fact that the participants might have been familiar with this kind of placement could have led them to evaluate it as more credible, which is assumed to have consequently influenced their evaluation of the product's quality.

5.2 Effects of Fashion Logos on Product Liking and Wanting

Based on findings of past research, clothing selection was defined as uniqueness-seeking behavior (Snyder & Fromkin, 1980; Workman & Kidd, 2000) which describes customers' aim to use fashion items to relate themselves to specific groups and distinguish themselves from others. Thereby Co-Branded products could deliver a higher level of uniqueness than individual brands on their own. Additionally, it has been found that two brand logos lead to a more favorable evaluation of a product (Rao & Ruekert, 1994). This led to the proposed effect that a Co-Branded product would receive higher scores in liking compared to a single branded product. The current study could not find evidence for the expected effect. Instead, across all fashion items, the product branded merely with the Luxury Fashion logo received the highest ratings in liking. The Co-Branded product received significantly lower ratings in liking than the Luxury Fashion one. The product branded solely with a Fast Fashion logo received the lowest rating in

liking. However, this was not significantly different to the Co-Branded one. Looking at the separate findings for the six products revealed that there were visible differences between the liking scores of the different fashion items, while the effect of the branding conditions was mostly non-significant. This suggests that the fashion product itself might be even more important for the evaluation of liking than the influences of the advertising brands.

For product wanting, the reviewed literature suggested that Co-Branding between Fast Fashion and Luxury Fashion brands can create a "hype" among customers through advertising and media attention, that can lead to high levels of wanting of the particular products (Mrad et al., 2019). It was therefore proposed that the Co-Branded product would receive higher ratings in product wanting than a single branded product. Looking at the combined effect, the current study found that the Co-Branded products actually received higher ratings compared to both, the product branded with a FF logo and the products branded with a LF logo. This is contrary to the current study's findings in terms of liking and in line with reviewed literature that suggest that wanting can occur without liking when consumers are exposed to advertisements which insinuate a strong urge to possess the particular product (Anselme & Robinson, 2015). However, the effects in the current study could neither reach a level of significance, nor could they be shown across all fashion items. Similar to the results of product liking, the fact that most effects between the groups were not significant further indicates that there are other factors that influence how much someone wants a product to a higher extent than the influence of the advertising brands. This assumption is supported by the observation that the different dresses with the same branding show varying ratings in the level of PW.

5.3 Spillover Effects for Fast Fashion and Luxury Fashion brands

Brand quality was defined as an influential aspect in building strong brand equity (Aaker, 1991; 1996; 2008; Keller, 1993; 2008) and Co-Branding was defined as a way to enhance this aspect (Oeppen & Jamal, 2014; Simonin & Ruth, 1998). Literature indicates that brands can benefit from positive spillover effects that transfer specific associations from one brand to the other. However, an asymmetry of spillover effects can exist, leading to one brand benefitting from more positive associations than the other and even leading to harming a partner's brand equity (Simonin & Ruth, 1998). This is especially the case in terms of perceptions of brand quality. For a FF brand, Co-Branding is seen as a strategy to borrow quality perception from the LF brand (Oeppen & Jamal, 2014; Shen et al., 2014). For a LF brand however, Co-Branding could lead to a decrease in brand quality that is able to significantly damage the brand (Berthon et al., 2009; Bruce & Kratz, 2007; Hennigs et al., 2013). The current study therefore predicted lower

results in the perception of brand quality for a LF brand when advertised as part of a Co-Branding alliance, compared to a single logo. Consequently, a FF brand was predicted to receive higher results in perceived brand quality when shown as part of a Co-Branding alliance compared to being shown as a single logo. Even though the current study could not find significant results, it could still demonstrate the direction of the predicted effects. In most cases a LF brand received lower results in brand quality perception after being advertised in a Co-Branding alliance with a Fast Fashion brand, compared to the single brand condition. The FF brands however received mostly higher ratings in perceived brand quality, when advertised in a Co-Branding alliance with a LF brand, compared to the single logo condition. This supports the notion that FF brands can benefit from positive spillover effects from LF brands and that contrarily for LF brands, Co-Branding could lead to brand dilution (Berthon et al., 2009; Bruce & Kratz, 2007; Hennigs et al., 2013). However, and surprisingly, in the case of H&M, the paring with the brand Gucci lead to an even lower quality perception. A possible explanation for this could be a contrast effect (Tversky,1977), that was explained in 2.1.1.3. The two brands might be too far apart so that their different aspects overrule the similar ones, which leads them to become further disconnected constructs. Additionally, it was observed that the quality perception of the brands differed for the "advertised single" condition and the "not advertised" condition. This could indicate that participants take valuable information about the brand's quality from observing the advertised product. However, the fact that most of the differences between the logo conditions are not significant, while the differences between the quality perception of the FF brands and the LF brands itself are significant, indicates that the perceived brand quality is a predefined construct. As all of the brands are highly familiar, it seems reasonable that the participants have built an image about the brand's quality during previous brand touchpoints, which consequently influences their evaluation of the retailer. This image appears to be quite stable as the Co-Branding advertisements were not able to significantly change it.

5.4 Mediating Effect of PPQ between PBQ and PL

Considering the proposed mediating effect, the perceived product quality and the perceived brand quality could be identified as significant predictors for product liking. The effect could be revealed across all branding conditions. This is in line with reviewed literature indicating that both factors are connected to Aaker's (1991) brand equity dimension of perceived quality. A strong brand equity would thereby lead to higher product preferences (e.g. Aaker, 1991; 1996). The findings of the current study indicate that enhancing product and brand quality are important factors to receive favorable product evaluations.

The results of the conducted mediation analysis further reveal that the effect of perceived brand quality on product liking only exists via the perceived product quality. This result is quite logical, as customers usually like a product more when they not only perceive the brand as of higher quality, but when they also transfer this perception to the product. Consequently, a brand on its own is not sufficient in order to create liking based on quality perceptions. The product itself needs to be evaluated as a high-quality item as well. This coincides with Aaker's (1991) notion about perceived brand quality, suggesting that the construct is closely linked to underlying dimensions that include characteristics of the product to which the brand is attached, such as performance and reliability. Despite these insights in terms of how quality perceptions of brands influence the liking of a product, it needs to be remembered other important determinants of product liking might exist.

5.5 Summary of Findings

Summing up, the study revealed that FF, LF and CB logos have significantly different effects on the quality perception of the advertised product. A CB partnership led to positive effects relative to the FF branding and negative effects relative to the LF branding. The same direction of effects was found in terms of perceived brand quality, indicating that FF brands receive positive effects from Co-Branding partnerships, while a LF brand could risk their brand equity with it. The study also revealed that the two quality factors are significant predictors for product liking, highlighting the importance of enhancing the perception of quality.

The study further gave initial insights into how the logos should be placed to receive a greater quality evaluation. The tendency of the results show that contrary to the predicted results, the LF logo should be placed below the FF one, in order to receive a higher quality rating. It was argued that this resulted from knowledge of previous advertisements that led the participant to judge this logo placement as the more credible one. At this point the planned eye-tracking study could have revealed additional insights into how much visual attention was given to the specific logos, whether the fixation duration and number of fixations actually differed for the two logos, and how this would consequently influence the participant's evaluation of the product's quality. This could further reveal whether the effect mainly exists due to bottom-up or top-down influences as explained in 2.3.1.2. Is the participant deliberately evaluating the connection between product and logo, or is he mostly processing the evaluation automatically based on the stronger influence of the logo's placement?

Regarding findings on liking and wanting of the products, the results of the study lead to the indication that liking of a product can be enhanced by a CB logo, relative to a single FF one and reduced relative to a single LF one. For wanting, however, the results indicate that a CB logo, could trigger a higher urge to purchase the product, relative to both, a single LF or FF branding. The fact that wanting and liking are not correlated indicates that the two variables seem to be disassociated, as proposed by past research findings (Anselme & Robinson, 2015; Robinson et al., 2015). Findings of the study further indicate that there seem to be other indicators which exceed the importance of the branding influence. These other factors could for example lie in stylistic or aesthetic elements, that could either be predefined and guide top-down attention, or could trigger initial attention (Ngo et al., 2012; Opperud, 2004). Again, in this context the planned eye-tracking study could have revealed important insights into where the participants look at when evaluating how much they like or want a specific product. The total fixation duration and number of fixations on the product, or specific parts of it, could for example have been compared to the total fixation duration towards the logos.

Concluding, the results of the study indicate that bottom-up and top-down processes are likely to be involved in the processing of Co-Branding advertisements, which is in line with past research findings (e.g. Clement et al., 2013; Posner et al., 1980). As the brand logos serve as cues for evaluating the quality of the brand's products, they facilitate System 1 thinking by enabling respondents to make fast and intuitive evaluations of the shown product quality (Kahneman, 2002). At the same time, their responses seem to be strongly guided by previously defined images about the advertised brands. However, these derivations are only based on assumptions. In order to further analyze the influence of bottom-up and top down influences, the eye-tracking experiment is advised to be conducted. The measures of fixation duration and number of fixations could hereby give beneficial insights into the existence and relative influence of bottom-up and top-down processes (Bylinskii & Borkin, 2015; Farnsworth, 2018). This would consequently give an argumentation basis of whether logo placement or enhancing other saliency aspects of the Luxury Fashion Logo would have a significant influence on the evaluation of the advertised product.

5.6 Evaluation of Research Quality

"Reliability and validity are tools of an essentially positivist epistemology."
(Watling, as cited in Winter, 2000, p. 7)

Before discussing the found results of the survey in detail and deriving practical implications, it is crucial to critically reflect upon the conducted study and the chosen methodology by exploring the issues of reliability and validity. These are important concepts for measuring potential biases and distortion of the research that could have influenced the found results.

5.6.1 Reliability

Reliability refers to the extent to which the used data collection techniques or analysis procedures will offer consistent findings (Saunders et al., 2014). According to Robson (2002), there are four different threats to reliability that can occur, two of which are applicable to this research. The first one is called *participant error*. For example, some of the participants may have completed the survey under time pressure or with minimal effort and concentration on the questions, e.g. while they were working or talking on the phone with a friend. This may lead to different results compared to respondents who have taken five minutes without distraction to answer the questions. Further, questions asked in the survey could have been understood differently by different respondents, as the survey language was English and almost all participants were non-native speakers.

Similarly, there may have been a *participant bias*. Some respondents may have had their own ideas about what the research is trying to find and hence their answers may have been biased or influenced by that impression. In order to minimize this bias, distractor images were used in the survey to make the purpose of the research less obvious. Very often, respondents' answers are also biased when they believe the study is not anonymous and someone could judge them for their answers and opinions (Saunders et al., 2014). To remove this bias as best as possible, it was pointed out to potential participants and within the survey that answers are completely anonymous and will be used solely for scientific research purposes. Lastly, it is deemed very likely that respondents' general mindset towards shopping for clothes and luxury brands was influenced by the societal and economic impact of the Coronavirus during the time the study was conducted. Data was being collected while most of the world population was self-isolating at home, millions of people lost their jobs and the virus led to thousands of death victims per day. Taking these situational factors into consideration, it is assumed that the answers to the survey questions directly related

to the shown fashion advertisements, specifically the luxury fashion ones, were affected by participant bias.

Observer error and *observer bias* can also occur, as different researchers can have different ways of asking questions to elicit answers and can also interpret replies in different ways. These two reliability issues are however more relevant for qualitative interviews, which were not part of the conducted study. Results of the conducted online survey are statistically analyzed based on numerical data and each respondent was exposed to the same exact questions, hence it is assumed that observer error and bias are controlled for in this research.

5.6.2 Validity

While reliability is referred to as the stability of findings, validity is represented as the truthfulness of findings (Altheide & Johnson, as cited in Mohajan, 2017). An instrument can be reliable without being valid, however it cannot be valid without being reliable (Mohajan, 2017).Validity can be defined as the extent to which a concept is accurately measured in a quantitative study (Heale & Twycross, 2015). The traditional notion of validity finds its roots in a positivist view and to an extent positivism has been defined by theories of validity (Golafshani, 2003). Joppe (as cited in Golafshani, 2003) has provided an explanation of what validity means in quantitative research: "validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are" (p. 598).

Two essential components of validity are distinguished in research, namely internal and external validity (Mohajan, 2017). Internal validity (credibility) indicates whether the found results of a study are legitimate because of the way groups were selected, data was recorded or analyses have been made. External validity (generalizability) is linked to whether the results of the conducted study are transferable to other groups of interest. Further, different types of test validity exist, which deal with the accuracy of the actual components of a measure.

Related to test validity, the use of single-scale items as implemented in the online survey to measure complex constructs like product liking, wanting and perceived product and brand quality can be mentioned as a criticism. Through the reflection of the authors on the constructed survey, it is acknowledged that it may be problematic to capture a rather complex construct with a single item, possibly leading to flaws in content validity (Robinson et al., 2015). This type of measurement is only advisable for concrete constructs that are well understood. Instead, using multi-point scales for more complex

constructs would allow for a more precise detection of significant differences within the sample and could provide better insights.

Another criticism related to internal validity is that participants of the online survey were randomly allocated to three different groups by the survey tool, which were then compared afterwards. Hence, the homogeneity of the three groups could not be fully ensured, however an analysis of demographic and behavioral attributes tested for each group shows that none of them is strikingly different from the other (see section 4.2.1.4). Further, the collected data has been analyzed with the statistics software SPSS using a one-way ANOVA, which requires that the data fulfills six specific assumptions. As elaborated in section 4.3, some of these assumptions were violated, which can lead to less valid analysis results. To the best ability of the authors, common and generally advised measures were taken in order to overcome these flaws and ensure validity of results.

When it comes to external validity or generalizability, the main criticism can be traced back to the sampling method. Due to the fact that mainly convenience and snowball sampling methods were used to find participants, the final sample is only slightly heterogeneous and it is therefore questionable whether it can represent the whole population. Subjects were selected because of their convenient accessibility and proximity to the researchers, leading to a potential sampling bias. Although the final sample represents multiple nationalities as well as different age groups and occupation types, the majority of participants are from Europe, between the ages of 23 and 27 years and students. Hence, expanding the sample to include other nationalities outside of Europe and older populations would be desirable. Moreover, this study was conducted using only female participants due to the female clothing shown in the advertisements. However, to generalize results to a wider population, the study would also have to be conducted with male clothing using only male participants.

5.7 Implications

The aim of this research is to add scientific knowledge to the under researched field of Co-Branding alliances between Fast- and Luxury Fashion brands with a focus on how Co-Branding advertisements can influence consumers' quality evaluations and reward-related responses. Even though the initially planned eye-tracking experiment could not be realized, several practical and academic implications can be drawn from the results of the conducted online survey, which at the same time provide opportunities for further research.

5.7.1 Academic Implications

The originality of this research lies in the fact that to the authors' best knowledge, for the first time a mixed-method research model was suggested in order to study how logos in Co-Branding advertisements influence consumers' quality evaluations and reward-related responses towards the partnering brands and advertised products. A combination of a neuroscientific eye-tracking experiment and a more traditional online survey promises insights for a more holistic understanding of unconscious and conscious consumer responses in the context of Co-Branding. Further, the effects related to perceived quality as well as product liking and wanting were measured after participants have been exposed to only one Co-Branding advertisement. Hence, the power of Co-Branding based on a single advertisement could be demonstrated. Opposed to this, extant Co-Branding literature between LF and FF brands mainly applies a retrospective view measures effects after consumers have been exposed to many different advertising techniques included in the marketing mix of highly anticipated Co-Branding alliances (e.g. Luck et al., 2014; Mrad et al., 2019).

Accordingly, one academic contribution of this study is that the exposure of consumers towards a single Co-Branding advertisement between a Luxury and a Fast Fashion brand already has a potential influence on the quality evaluations of the partnering brands. By applying a retrospective lens, existing research has found that the FF brand in Co-Branding alliances tends to profit from the high brand quality of the LF brand (Oeppen & Jamal, 2014; Shen et al., 2014), while the collaboration with a FF brand often leads to a damage in brand quality for the LF brand (Bruce & Kratz, 2007; Hennigs et al., 2013). Adding to this, results of the conducted survey coincide with these findings but highlight that this effect can already occur after the exposure to a single advertisement.

As presented in 2.1.2, according to Olson (1974), consumers rely on multiple visual cues when making product-related judgements as a means of evaluating the quality, durability or other factors that would help them in their decision to make a purchase. Brand logos were assumed to function as one of these types of cues by the authors of this thesis. Results of the conducted online survey allowed a transfer of Olson's cue-utilization theory (1974) to the context of Co-Branding advertising. In line with the main premise of the theory, it was found that brand logos do serve as important cues for evaluating the quality of an advertised product. This further suggests that consumers have predefined images of brands in their minds which are associated with different levels of quality and linked internally to the brand logos. As quality is reflected in one of the five dimensions of Aaker's brand equity construct, the importance of high quality associations about a product in consumers' minds is emphasized to foster brand equity. Adding to this, it is important to note that the collected survey data not only suggests brand logos as an indicator of product quality, but also hints at the product itself as an important factor influencing customers' quality evaluations. By employing eye-tracking data, the authors of this thesis were hoping to analyze the conscious and unconscious influence of logo and product effects on quality judgments and to transfer Olson's (1974) cue-utilization theory to the Co-Branding context on a neuroscientific level. Moreover, the proposed mixed-methodology research model could add to the understanding of neurophysiological mechanisms underlying the influence of Co-Brands on product preference. By implementing the eye-tracking experiment, detailed insights could be gained in relation to the first two phases of preference formation as described in the value-based model of choice (Plassmann et al., 2012). As the eye-tracking study could unfortunately not be conducted, related suggestions for further research are highlighted in part 7 of this paper.

5.7.2 Managerial Implications

The underlying study confirms that logos serve as highly important extrinsic cues for consumers when evaluating the quality of an advertised product. The results further suggest that perceived product and brand quality are significant predictors of product liking, which is assumed to be closely linked to purchase intention. In line with the dimensions of brand equity as proposed by Aaker (1991), brand managers are advised to create initiatives that support building a decisive brand image in consumers' minds that is associated with high quality products. From this findings implications emerge for both, Luxury- and Fast Fashion brands.

Implications for Fast Fashion Brands

For Fast Fashion retailers, survey results and extant fashion literature suggest Co-Branding is a reasonable strategy to achieve a high quality image due to the positive spillover effect from the partnering Luxury brand (Oeppen & Jamal, 2014; Shen et al., 2017). Hence, the results of the underlying study support the initiation of Co-branding partnerships with Luxury Fashion retailers by Fast Fashion brands. However, the results of this study indicate that if the two involved brands are too different in terms of their quality perception, a Co-Branding alliance could lead to a contrast effect, which will reduce the quality perception of the Fast Fashion brand. As this implication was only found in the case of H&M in the online survey, there could be other factors that could have caused this effect, which still have need to be identified.

Implications for Luxury Fashion Brands

Care has to be taken when Luxury Fashion brands decide to collaborate with a Fast Fashion retailer. The current study suggests that the quality perception of a Luxury Fashion brand and the related product is reduced when the brand participates in a Co-Branding alliance with a Fast Fashion retailer. Consequently, Co-Branding could lead to negative quality associations in consumers' minds and hence diminish the Luxury brand's equity. In order for Luxury Fashion brands to still benefit from Co-Branding through increasing their scope of influence among consumers, staying relevant in the current marketplace and entering new markets, it is vital to select the right collaboration partner. Therefore, it is suggested to conduct extensive market and consumer research prior to engaging in Co-Branding partnerships, which could focus for example on the critical success factors of these partnerships, such as brand fit, product uniqueness and brand popularity as elaborated in section 2.1.2.4. The benefits of Co-Branding applying to Luxury Fashion brands, such as high levels of brand awareness, have to be weighed against the potential detrimental short- and long-term effects on perceived brand quality among target consumers.

The design of Co-Branding advertisements

Specific implications can be deducted for the design of Co-Branding advertisements based on the results of the online survey. Past Co-Branding advertisements, as displayed in Appendix A, have placed the brand logos in different positions. In many cases, the Luxury Fashion brand is placed above or at least before the FF brand (Labbrand, 2011). This might be explained by the fact that the FF brand appears as the parent brand and the LF brand as the participating one (Labbrand, 2011). However, opposed to these examples and the hypothesized effects, results of the study suggest that Co-Branding advertisements should place the LF logo below the FF logo. The finding indicates that such placement may lead to higher evaluations of product quality.

Additional implications in terms of the advertisement design can be derived from the finding that the product itself plays a decisive role in quality evaluations of the advertised product. Further, as the results suggest a mediation of perceived product quality in the relationship between perceived brand quality and product liking, it appears that the high quality perception of logos can only make a difference in terms of product liking, if the quality perception is transferred to the product. This leads to the suggestion that marketing and brand managers should use high-quality fashion images in Co-Branding advertisements that speak to the desired target group in order to foster high quality perceptions in consumers' minds.

Co-Branding as a trigger for consumer attention and incentive salience

The underlying research found significant effects related to increased scores of wanting for Co-Branded products in comparison to both, single branded FF and LF products. This finding coincides with research in the context of humans' reward system (Anselme & Robinson, 2015) and practical experience of existing Co-Branding collaborations (Luck et al., 2014; Mrad et al., 2019). As high levels of wanting, or incentive salience, are often correlated with impulse purchase decisions (Lades, 2012; Robinson et al., 2015), Co-Branding advertisements could trigger a significant push in sales for the collaborating brands. Moreover, the repeated exposure of consumers to a variety of Co-Branding advertisements can create high brand awareness and a "hype" among consumers (Mrad et al., 2019), which further triggers consumer wanting. Interestingly though, while the survey found a significant increase in wanting for the Co-Branded products across all fashion items, the effects for liking did not show the same results. The highest ranked products in terms of liking were the ones solely branded with a Luxury Fashion brand. This insight confirms suggestions made by researchers in the past that advertisements can lead to peaks of wanting, while the liking of the product remains at the same level or even decreases (Anselme & Robinson, 2015; Litt et al., 2009). This implies that brand and marketing managers of fashion labels need to make an important decision regarding which effects they prioritize for their brand. By advertising the business through Co-Branding, short-term levels of consumer wanting are likely to peak, resulting in increased sales until the consumer's need is satisfied. However, due to the asymmetrical development of liking and wanting, these kind of impulse purchases triggered by advertisements often lead to consumer regret and less positive evaluations of the product (Anselme & Robinson, 2015), which in the long run could negatively influence consumer-brand relationships, consumer satisfaction and word-of-mouth about the brands' products.

6. Conclusion

Co-Branding has become an opportunity for fashion companies to adapt to the constantly changing and increasingly competitive environment, in which a strong brand has become a critical success factor. Literature shows that Co-Branding is able to influence customer associations with the involved brands and thereby influences brand equity. This is particularly interesting when Fast Fashion brands collaborate with Luxury Fashion brands, which both are likely to have entirely different association networks. In the current thesis, special emphasis was placed on the effects that Co-Branding between Fast Fashion and Luxury Fashion brands has on consumer behavior. Interest was particularly focused on the effects of Co-Branding on consumer's perceived product and brand quality as well as their reward-related conscious and unconscious responses (liking and wanting) to the clothing items. As an example, the study used the three Fast Fashion brands H&M, Zara and Mango as well as the three Luxury Fashion brands Gucci, Dior, and Chanel to establish fictive Co-Branding alliances. Based on literature from traditional branding theory as well as neuroscience, it was proposed that the effects for the brands will be asymmetrical with respect to the variables chosen, resulting in the Fast Fashion brand benefiting more from the Co-Branding partnership than the Luxury Fashion brand, especially in terms of quality perceptions. In order to test the proposed positive and negative effects that could occur for the participating brands in a Co-Branding alliance, a mixed-method research framework was proposed. The first part included an online survey, as a traditional research method, the second part an eye-tracking experiment as a neuroscientific method. However, due to situational constraints, only the first part could be carried out.

The findings of the online study revealed strong influences of brand logos on preferences and quality perception of the products being branded with a single logo, in favor of Luxury Fashion brand logos. For Co-Branding, the results of the current study are in line with past findings, indicating that it leads to beneficial effects for Fast Fashion brands, in terms of all analyzed variables. For Luxury Fashion Brands, however, the study shows that Co-Branding can also result in negative effects, especially in terms of perceived quality and product liking, as well as perceived brand quality. The latter aspect could thereby damage brand equity in the long term. This effect was already observable after the exposure of consumers to one Co-Branding advertisement, hinting at the power of influence of brand alliance advertising. The study further revealed useful insights for the placement of logos in Co-Branded advertisements. The results thus contribute to the current literature on Co-Branding and deliver valuable implications for marketing practice. Limitations of the research design were discussed, especially in terms of scale-development, and should be adapted when further developing the design. This could have led to more statistical significance and thus interpretable results.

Despite the valuable findings of the study, the study strongly recommends to conduct the proposed eye-tracking experiment as it can deliver highly relevant additional insights, particularly into the unconscious processes that are emphasized in literature about wanting and liking of products, which consumers are not able to deliberately report. This would have supported the finding of significant and interpretable results. In particular, the strength of the proposed top-down as well as bottom-up influences can be better identified by the eye-tracking experiment in order to derive further valuable academic and managerial implications. With the defined mixed-method research model the current study thus provides an impulse for further neuroscientific research.

7. Perspectives for Future Research

As the scope of this Master's thesis was limited in relation to time and situational factors caused by the outbreak of the Coronavirus, avenues for future research are proposed which tie into the conducted survey and findings of this study. First of all, it is advised by the authors to conduct the set-up an eye-tracking experiment as presented in section 4.1.1 in the future in order to complement found results and add to the chosen research field. Data about participants' eye-movements while looking at the advertisements could enable a better understanding and interpretation of the consciously given survey responses. These findings could be complimented with unconscious reactions of participants as reflected in their eye-movements, which they may have not been aware of themselves or may have not been able to express. Further, as described in section 5.3.1, the given answers rely completely on self-reported measurements and different participant biases and errors are possible (Arnould et al., 2005; Dimofte, 2010; Nevid, 2010). To put it differently, even if the survey results did not deliver significant results for some of the hypotheses and lead to their decline, the eye-tracking data could reveal significant differences that are only observable below the level of consciousness, but still have an immense impact on consumers' purchasing behavior and are therefore relevant insights that add to the field of research.

In addition, further possibilities for future research are suggested, taking the conducted survey as a basis. For the experiment, the LF and FF brands were randomly selected for Co-Branding advertisements without taking into consideration aspects of perceived brand fit by participants. However, as elaborated in section 2.1.2.4, it is known that a critical success factor for Co-Branding collaborations is the brand fit. The selection of the right partner for a brand alliance is a complicated problem because the drivers of brand fit are not well understood (van der Lans, van den Bergh, & Dieleman, 2014). One would expect that similarity between partnering brands increases fit, however a slight congruity may lead to favorable evaluations too. After all, the pieces of a puzzle fit because they are complimentary, not because they are

similar. This is also in line with research conducted in relation to brand fit of Co-Brands, with some scholars finding brand complimentary as a success factor (Park et al., 1996), while others found similarity as a determinant of successful brand alliances (Ahn et al., 2010; Helmig et al., 2008; Simonin & Ruth, 1998). A study in the fashion context conducted by Mrad et al. (2019) similarly suggests that a brand alliance is more successful if the fashion retailers share similar customer associations and are perceived somewhat alike when it comes to attributes such as product quality, price points and target customers (see section 2.1.2.4). Based on this knowledge, it is deemed interesting to investigate prior to the conducted survey how much consumers perceive the two collaborating FF and LF brands as fitting well together and how this influences evaluations in product quality, brand quality as well as product liking and wanting compared to partnering brands with a perceived poor fit. These possible effects could be taken into consideration as a control variable, as they could have an influence on the found impacts of logos in Co-Branding advertisements on consumer perceptions and reward mechanisms.

In relation to the brands used in this experiment, it could also be interesting to replicate the study and include a few fairly new fashion retailers that do not have a strong brand image and awareness among consumers yet. The companies used in the conducted study were all extremely popular among consumers and counted as some of the strongest, most influential brands in the world (Interbrand, 2019). The non-significant results of the data analysis indicate that participants' existing and stable brand associations could have possibly lowered the power of spillover effects related to brand quality from one Co-Branding partner to the other (see section 5.3). By combining a very established and strong brand with a fairly new one that has almost no brand awareness and image yet, one could test the extent to which an established alliance partner can influence new businesses through Co-Branding advertisements. Such findings could be highly insightful for marketing managers of new brands who are considering a collaboration with popular and influential retailers in order to build their image and foster positive brand associations.

Further, due to the fact that survey data was mostly insignificant related to spillover effects from one brand to the other as a result of one Co-Branding advertisement, it could be relevant to test whether this also holds true over longer periods of time with repeated exposure of consumers to Co-Branding advertisements. High-quality brands such as Chanel, Gucci and Versace are usually established over many years with a strong and positive network of consumer associations (Dens & De Pelsmacker, 2016). It is deemed especially relevant to test how resistant this highly established brand image is towards potentially damaging spillover effects from repeated Co-Branding alliances with Fast Fashion retailers.

When shifting the focus on the subjects of the study, the survey and eye-tracking experiment could further be replicated to also include male participants by adding advertisements that picture fashion items for

men. Even though women account for a large proportion of the luxury consumer market and are the target customers for most Fast Fashion retailers (as described in 4.1.2.4), men are also an important customer segment for clothing retailers. For example, in China, which is the largest fashion market and the second largest consumer of luxury goods in the world (Bain, 2018; Degen, 2010), one of the main fashion trends is the increased purchasing power of men, as more Chinese men become interested in clothing and fashion, especially in luxury items (Deloitte, 2019; Keller, 2014). Including men in the experiment and measuring their evaluations of quality and reward-related responses after viewing Co-Branding advertisements would increase the external validity of the study, since findings would be more generalizable for bigger parts of the population. In addition, it would be desirable to conduct the study with participants showing a higher diversity in terms of age, occupation and disposable income. As elaborated under 4.2.1, most subjects of the conducted survey were between the ages of 23 and 27, with 67% of them being full-time students. This large number of respondents is assumed to have limited financial power, which could have influenced their survey responses in relation to the shown products being advertised by a luxury brand. To test whether survey results differ for customer groups with a high disposable income, it is reasonable to expand the sample to include older respondents with varying occupations and income levels.

As found in the analysis of collected survey data, most Luxury Fashion brands were evaluated lower in terms of perceived brand quality when they were shown together with a Fast Fashion logo in a Co-Branding advertisement, compared to when they were shown on its own in the "single brand condition". The reverse effect was found for Fast Fashion brands, who profited from positive spillover effects and a higher evaluation in brand quality as a consequence of the Co-Branding advertisement. Interestingly, when taking only the luxury shoppers of the survey into consideration (those that have at least once bought luxury clothing before), these effects appear to be even stronger (see section 4.3.4). Scholars have reported about the potential negative spillover effects of LF and FF Co-Branding collaborations on the perceived brand quality of LF brands (Bruce & Kratz, 2007; Dall'Olmo Riley et al., 2013; Hennigs et al., 2013). In this context it would be very interesting to further investigate how significant these effects are for frequent luxury consumers. Participants of this survey who were grouped into the "luxury consumer segment" by having purchased luxury clothing at least once only accounted for half of the total sample. Moreover, only 19% of this segment purchase luxury clothing at least twice a year, which significantly reduces the actual group of heavy luxury consumers. Hence, researching the scope of negative spillover effects from the FF to the LF brand due to Co-Branding advertisements using a large sample of heavy luxury fashion consumers is advisable. Combining the survey with gaze data from the eye-tracking experiment could provide additional insights about respondents' implicit reactions to enlighten the effects co-branded logos can have on brand quality evaluations of Luxury Fashion Brands.

Lastly, as it was elaborated in 5.4, it is assumed that besides perceived product and brand quality, there may be other more important factors related to the product itself that influence the evaluation of product liking. These determinants could not be identified within the scope of this thesis, however it is likely that they are related to aesthetic attributes of the shown fashion items. As argued by researchers like Page and Herr (2002) and Veryzer and Hutchinson (1998), affective judgments are largely derived from aesthetic aspects of a consumer product. To analyze which aesthetic attributes most influence reward related responses, the planned-out eye-tracking experiment could have provided useful insights by delivering fixation data towards different regions of the shown fashion items.

Related to the influence of aesthetic attributes, it could also be considered to extend the eye-tracking experiment and pair gaze analysis data with real-time brain activity data while consumers are looking at the fashion advertisements. For example, by simultaneously testing with an eye-tracker and an EEG device, specific moments in which participants' brain activity indicates reactions related to approach motivation and positive emotions (Coan & Allen, 2003) could be analyzed with real-time eye-tracking data to find out where exactly the test person is fixating on during that moment. This could lead to better insights regarding the possible influence of specific aesthetic attributes when asking consumers about their evaluations of PBQ, PPQ as well as their product liking and wanting. It is assumed that these kinds of insights would be highly valuable for product designers as well as marketing professionals when creating desirable products and influential advertisements. For the possibly most detailed analysis of brain region activation during the processing of the Co-Branding advertisements, the neuroscientific technique of functional magnetic resonance imaging (fMRI) could be utilized, which measured brain activity by detecting blood flow changes in specific brain regions (Heeger & Ress, 2002). Conducting the experiment with an fMRI scanner can be relevant with regards to analyzing the brain regions that are known to play a role in (un)conscious liking and wanting (see section 2.3.3 and the value-based model in section 2.3.1) and the general unconscious processing of advertisements (Li et al., 2016; Poels & Dewitte, 2006). However, it should be kept in mind that techniques such as fMRI and EEG significantly increase the amount of obtained data and complexity of data analysis. In addition, these methods are generally more expensive and difficult to implement than a screen-based eye-tracking study. When weighing the benefits of different neuroscientific techniques with their drawbacks, devices like fMRI and EEG may also not deliver fundamentally new insights to marketing and brand managers. Hence, it is advised for every practitioner in the field to reflect on what kind of knowledge is sought after and how to best obtain it while keeping own resources in mind.

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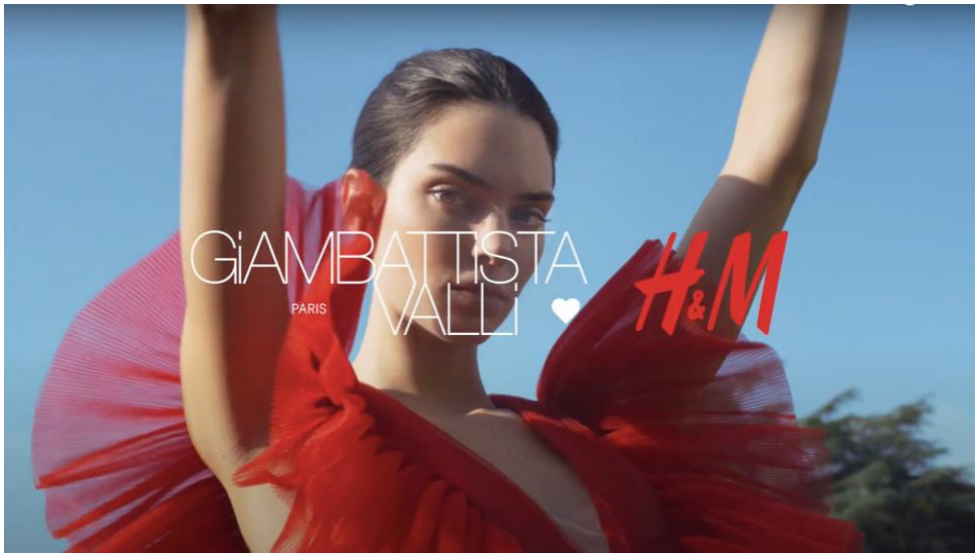
Appendix

Appendix A: Examples of existing H&M Co-Branding advertisements with Luxury Fashion brands showing different logo placements

Source: Ellen (2015)

Source: Metropolitan Models (2017)



Source: Sawyer (2019)

Source: Smith (2014)

Source: Designscene.net (2013)

Appendix B: Results from free association test prior to the experiment

Brand	Associations assigned to the brands in free association test (based on answers from 10 female students)
H&M	*Cheap, young, street fashion, low cost, basics, fashionable, trendy, affordable, playful, stylish and cheap, latest trends, wide assortment, affordable prices, value for money, high fashion styles, poor quality, every occasion*
Zara	*Youthful, classic styles, business styles, value for money, street fashion, poor quality, better than H&M, Spanish, women, latest fashion trends, affordable, good replications of high fashion styles, timeless, fast supply chain, service, European style, affordable process, low-medium quality, trendy, stylish*
Mango	*Poor quality, young people, dresses, colorful, sometimes a bit outdated, stylish, playful, floral, minimalism, crowded shops, low quality, cheap, dresses, occasion dresses*
Gucci	*Heavy chic, maximalism, accessories, extravagant, bold, shiny, snobby, glamourous, expensive, luxurious, belts, logo, gold, money, Italian, precious, edgy, bags, status-symbol, courageous, high quality, sophisticated*
Dior	*Classy, elegant, Marie-Antoinette, feminine, high quality, luxurious, high price, lifestyle, sunglasses, extraordinary dresses, extravagant, high fashion, sunglasses, cosmetics, fragrances, light color, pink, fluffy, quality, pearls*
Chanel	*Classic styles, expensive, Coco Chanel, mystic, heritage, Karl Lagerfeld, black dress, Chanel Nr 5, brand with history, cosmetics, sunglasses, old women, expensive, high quality, craftsmanship, elegant, chic, valuable, lady, soft colors*

Appendix C: Overview of distractor advertisements used in all survey groups

Source of images: shopbop.com (2020); fictional brand names generated using www.namelix.com

Appendix D: Questions and answer scales of part 1-3 of the eye-tracking experiment

Part 1 (taken directly from the iMotions software)

Part 2 (taken directly from the iMotions software)

Part 3 (taken directly from the iMotions software)

Appendix E: Question and answer options of part 4 of the eye-tracking experiment

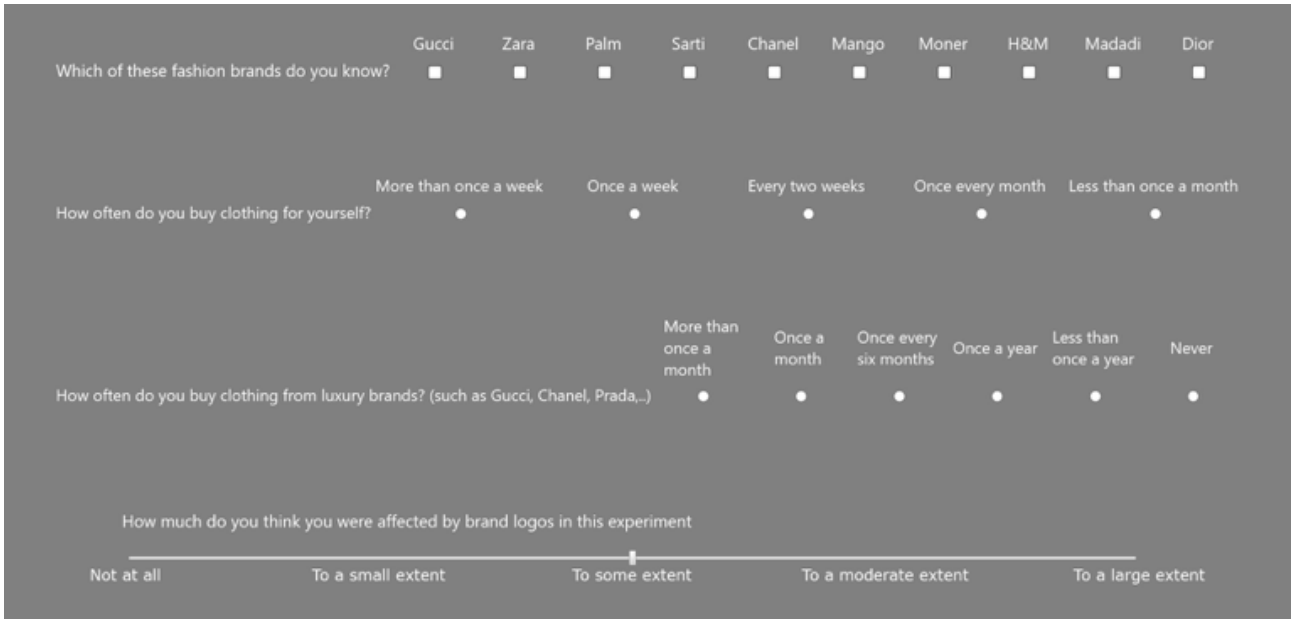
Part 4 (taken directly from the iMotions software)

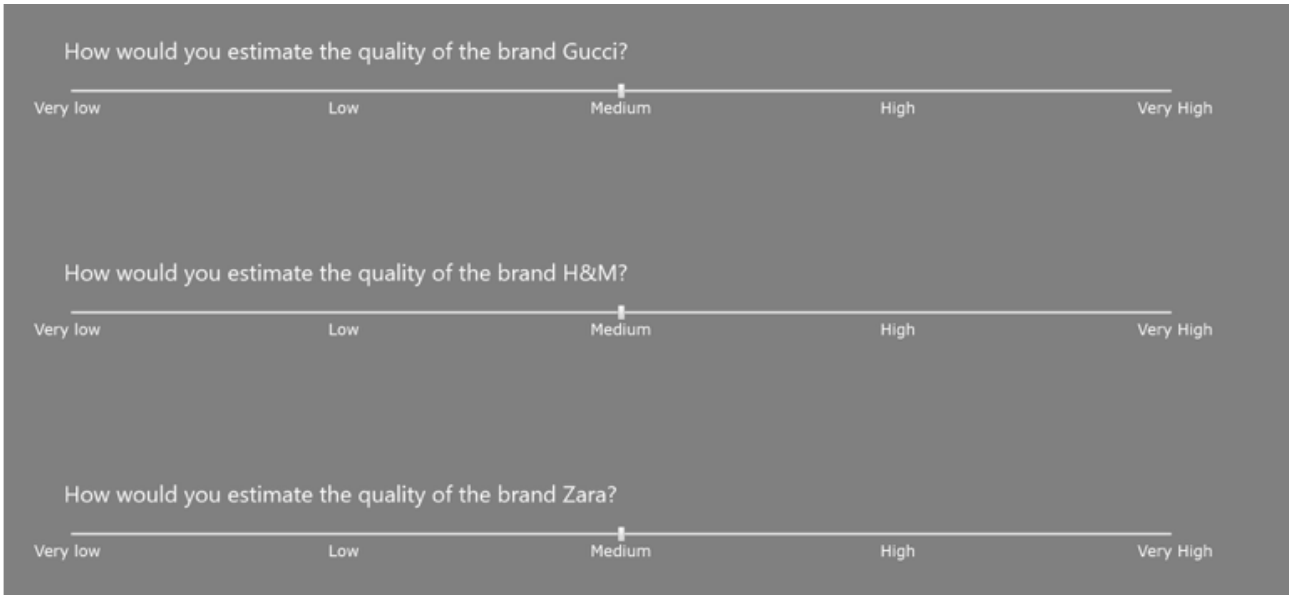
Well done! We will now continue with part 4, the final section of this experiment, which consists of a few additional questions.

What is your nationality? Please write your answer in the textbox below.

What is your main occupation at the moment?

- Student
- Full-time employee
- Part-time employee
- Self-employed
- Without employment
- Other




How would you estimate the quality of the brand Gucci?
Very low
Low
Medium
High
Very High
How would you estimate the quality of the brand H&M?
Very low
Low
Medium
High
Very High
How would you estimate the quality of the brand Zara?
Very low
Low
Medium
High
Very High


How would you estimate the quality of the brand Dior?
Very low
Low
Medium
High
Very High
How would you estimate the quality of the brand Chanel?
Very low
Low
Medium
High
Very High
How would you estimate the quality of the brand Mango?
Very low
Low
Medium
High
Very High

Appendix F: Complete online survey for an exemplary survey group

Hi there,

We are Sarah and Annika, studying Brand and Communications Management at CBS. Thank you for taking part in our study for our master thesis, we really appreciate your help! Answering the questions will only take around 5 minutes.

In the following, you will be shown different advertisements for fashion items. After each advertisement, you will be asked for your assessment of the **product quality**, how much you **like** the product and how much you **want** the product (i.e. how much you would want the product to be in your own wardrobe).

Once you have read and understood the information on this page, please click the arrow to start the survey.

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

How would you evaluate the product quality of the above fashion item?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How much do you like the above fashion item?

- Like very much
- Like
- Somewhat like
- Neither like nor dislike
- Somewhat dislike
- Dislike
- Dislike very much

How much do you want the above fashion item? (i.e. how much do you want to have it in your own wardrobe?)

- Want very much
- Want
- Somewhat want
- Neutral
- Somewhat don't want
- Don't want
- Don't want at all

Well done! We now have a few questions about the brands that you just saw.

Which of these brands in this survey do you know?

- Zara
- Chanel
- Sarti
- Mango
- Moner
- Madadi
- Palm
- Gucci
- Dior
- H&M

How would you evaluate the quality of the brand **Chanel**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How would you evaluate the quality of the brand **H&M**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How would you evaluate the quality of the brand **Gucci**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How would you evaluate the quality of the brand **Dior**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How would you evaluate the quality of the brand **Mango**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How would you evaluate the quality of the brand **Zara**?

- Very high
- High
- Somewhat high
- Average
- Somewhat low
- Low
- Very low

How often do you buy clothing from luxury brands? (such as Chanel, Prada, Versace,...)

- More than every month
- Every month
- Twice a year
- Every year
- Less than every year
- Never

Almost done! We would now like to ask you a few questions about your relationship with brands and your shopping habits.

How often do you buy clothing for yourself?

- More than once a week
- Once a week
- Every two weeks
- Every month
- Less than every month
- Never

How much do you think you were affected by brand names when evaluating the fashion items?

- Very much
- Much
- Moderate
- A little
- Not at all

You arrived at the end of the survey. Please leave a few details about yourself. All responses are treated anonymously and will solely be used for purposes of scientific research.

How old are you?
(Please type your answer in the box below)

What is your gender?

- Male
- Female

What is your nationality?
(Please type your answer in the box below)

What is your main occupation at the moment? (multiple answers possible)

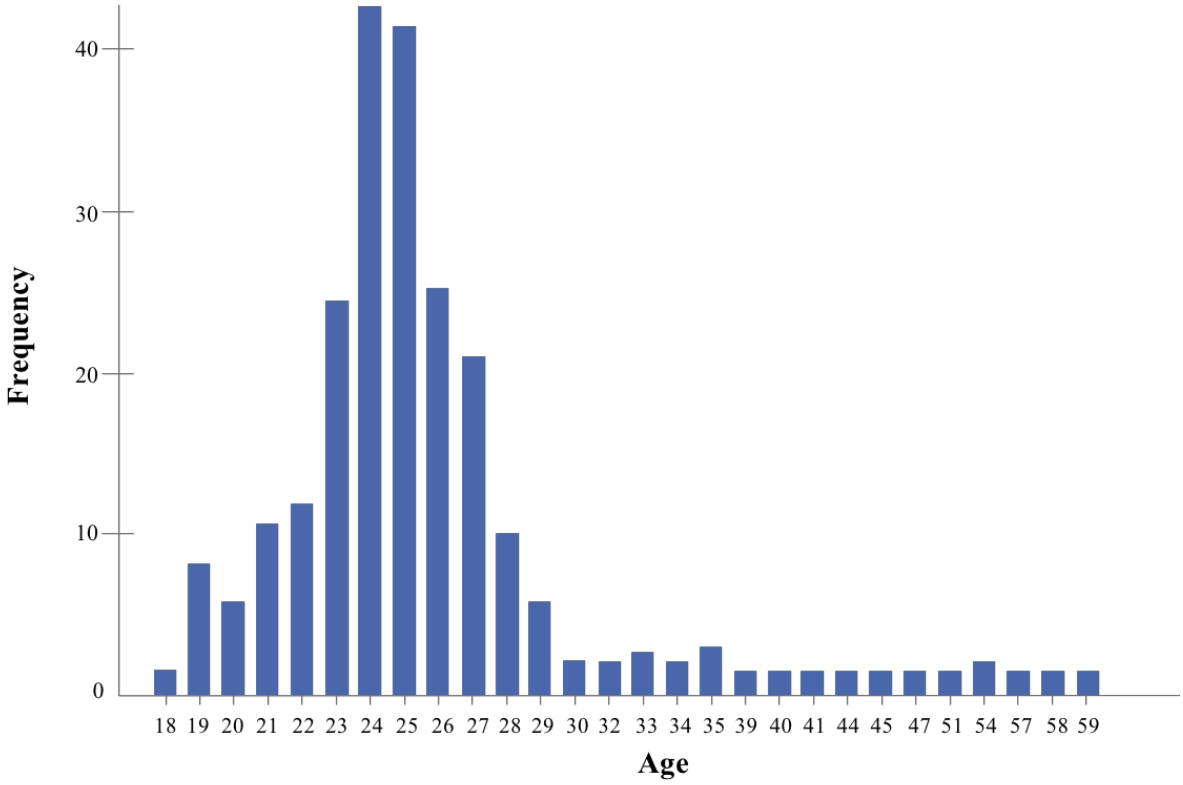
- Student
- Part-time employee
- Full-time employee
- Self-employed
- Not employed
- Retired

If you would like to have a chance to win one of two asos.com vouchers worth 25€ (187 DKK) each, leave your email address below

Thank you for participating in our survey!

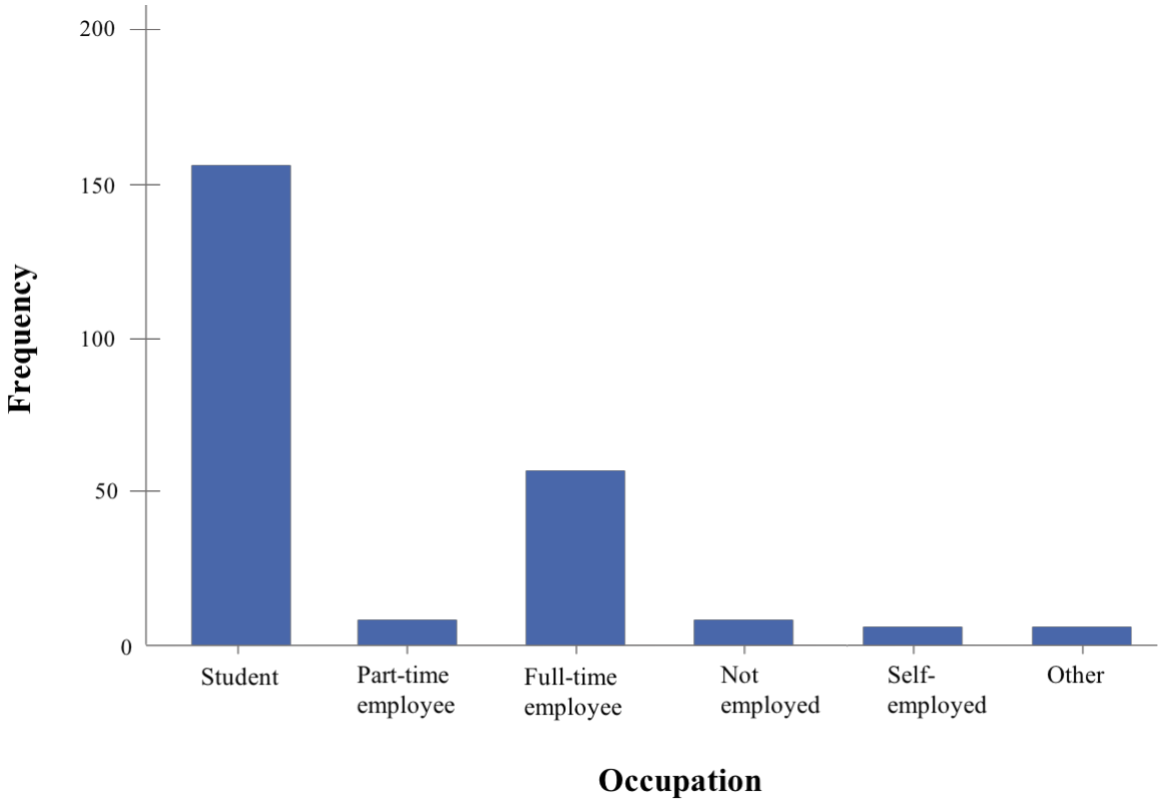
Appendix G: Age distribution of online survey sample (table and figure)

Age Group	Frequency	Percentage of whole sample
18-24	99	44.2
25-29	100	44.6
30-34	9	4
35+	16	7.1



Appendix H: Occupation distribution of online survey sample (table and figure)

Occupation	Frequency	Percentage of whole sample
Student	151	67,4
Part-Time Employee	7	3,1
Full-Time Employee	56	25
Not Employed	6	2,7
Self-Employed	2	0,9
Retired	0	0
Other	2	0,9



Appendix I: General fashion involvement of online survey sample

How often do you shop clothing for yourself?	Frequency	Percent
7 = More than once a week	2	0,9
6 = Once a week	4	1,8
5 = Every two weeks	24	10,7
4 = Every month	101	45,1
3 = Less than every month	90	40,2
2 = never	3	1,3

Appendix J: General fashion involvement of online survey sample per age group

How often do you shop clothing for yourself?	Age Group			
	18-24	**25-29**	**30-34**	**35+**
7 = More than once a week	1	1	0	0
6 = Once a week	0	4	0	0
5 = Every two weeks	11	10	0	3
4 = Every month	42	45	7	7
3 = Less than every month	43	39	2	6
2 = never	2	1	0	0

Appendix K: General luxury involvement of online survey sample

How often do you purchase clothing from luxury brands?	**Frequency**	**Percentage**
7 = More than every month	1	0,4
6 = Every month	2	0,9
5 = Twice a year	18	8
4 = Every year	25	11,2
3 = Less than every year	65	29
2 = Never	113	50,4

Appendix L: Luxury involvement of online survey sample per age group

How often do you purchase clothing from luxury brands?	Age Group			
	18-24	**25-29**	**30-34**	**35+**
7 = More than every month	0	0	0	1
6 = Every month	1	0	1	0
5 = Twice a year	5	10	1	2
4 = Every year	8	13	2	2
3 = Less than every year	31	27	1	6
2 = Never	54	50	4	5

Appendix M: Overview of assumptions for conducting variance and regression analysis

Overview of Premises			
	Premise	**Testing Method**	**Result**
ANOVA	Randomized sample	Ex ante defined	passed
	Group size>20	Examination of Dataset	passed
	No Outliers	Box-plot tests	passed
	Homogeneity of Variances	Levene-Test	passed
	Normal distribution	Kolmogorov-Smirnov-Test	(not) passed
Regression	Linearity of Correlation	Scatterplot between IV and DV	passed
	Sample variation of independent variable		passed
	Expected value of residuals = 0	Scatterplot between standard residuals and estimated Y-value	passed
	Homoscedasticity		passed
	Independence of residuals		passed
	Normal distribution of residuals	Histogram of residuals	passed

Appendix N: Test for homogeneity of variances using Levene's tests

Test of Homogeneity of Variances				
	Levene-Statistic	**df1**	**df2**	**Significance**
Q1a	,308	2	221	,736
Q1b	,202	2	221	,818
Q1c	,660	2	221	,518
Q3a	1,055	2	221	,350
Q3b	,956	2	221	,386
Q3c	,175	2	221	,839
Q5a	,399	2	221	,671
Q5b	5,963	2	221	,003
Q5c	4,199	2	221	,016
Q7a	1,937	2	221	,147
Q7b	2,807	2	221	,063
Q7c	,049	2	221	,952
Q9a	5,615	2	221	,004
Q9b	4,974	2	221	,008
Q9c	,400	2	221	,671
Q11a	,472	2	221	,624
Q11b	1,600	2	221	,204
Q11c	,572	2	221	,565

QX = dress number a = rating of perceived product quality b = rating of liking c = rating of wanting	Df1 = t-1 (t=number of treatments) Df2 = N-t (N=total number of observations) Significance need to be >.05

Appendix O: Kolmogorov Smirnov test for normality

Test for Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Significance	Statistic	df	Significance
Q1a	,169	224	,000	,927	224	,000
Q1b	,196	224	,000	,926	224	,000
Q1c	,157	224	,000	,933	224	,000
Q3a	,172	224	,000	,927	224	,000
Q3b	,238	224	,000	,900	224	,000
Q3c	,163	224	,000	,935	224	,000
Q5a	,151	224	,000	,944	224	,000
Q5b	,222	224	,000	,911	224	,000
Q5c	,165	224	,000	,936	224	,000
Q7a	,197	224	,000	,929	224	,000
Q7b	,178	224	,000	,922	224	,000
Q7c	,159	224	,000	,938	224	,000
Q9a	,163	224	,000	,935	224	,000
Q9b	,209	224	,000	,919	224	,000
Q9c	,149	224	,000	,939	224	,000
Q11a	,166	224	,000	,923	224	,000
Q11b	,178	224	,000	,935	224	,000
Q11c	,199	224	,000	,918	224	,000
a. Significance correction by Lilliefors*						

QX = dress number a = rating of perceived product quality b = rating of liking c = rating of wanting	Df = number of observations *reduction of Type II error (non-rejection of a false null hypothesis)

Appendix P: Overview of Hypotheses

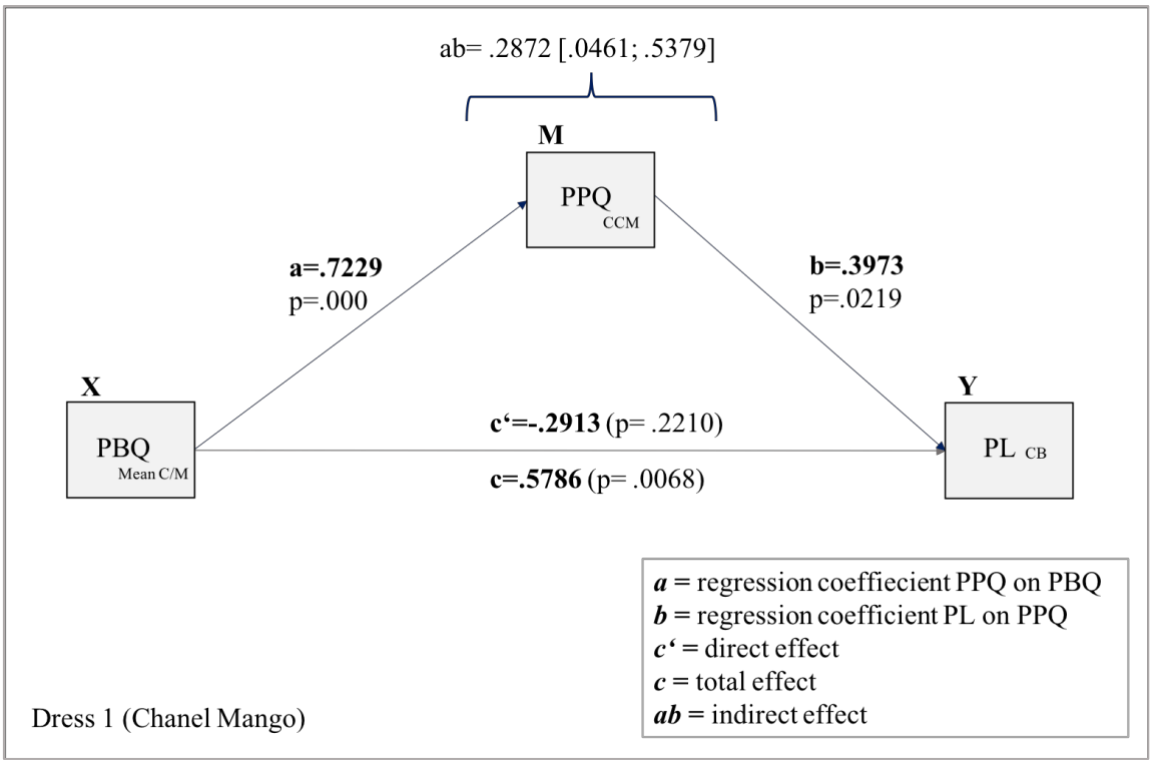
Hypothesis		Mean Difference	Significance	Result
H1	Higher PPQ when LF logo compared to FF logo	1.817	.000	Accepted
H2	Higher PPQ when LF logo and FF logo compared to only FF logo	.929	.000	Accepted
H3	Lower PPQ when LF logo and FF logo compared to only FF logo	.888	.000	Accepted
H4	Higher PPQ when LF logo placed above FF logo compared to below	Chanel/Mango (.027) Gucci/H&M (.230) Dior/Zara (.311)	Chanel/Mango (.174) Gucci/H&M (.22) Dior/Zara (.0443)	Rejected (reversed effect)
H5	Higher PL when LF logo and FF logo compared to single LF logo or single FF logo	Compared to LF: .257 Compared to FF: .085	p<.05 p>.05	Rejected (partly accepted)
H6	Higher PW when LF logo and FF logo compared to single LF logo or single FF logo	Compared to LF: .054 Compared to FF: .248	.909 .130	Rejected
H7	Higher PBQ for FF brand when advertised with LF logo compared to when advertised alone	H&M: .513 (reversed) Mango: .143 Zara: .176	.006 .470 .577	Rejected
H8	Lower PBQ for LF brand when advertised with FF logo compared to when advertised alone	Chanel: .095 (reversed) Gucci: .232 Dior: .101	.769 .298 .763	Rejected
Hypothesis		**F-Value (2,222)**	**Significance**	**Result**
H9	Higher PBQ leads to higher PL	FF: 4.552 LF: 14.546 CB: 47.381	.034 .000 .000	Accepted
Hypothesis		**Indirect effect (*ab*)**	**Bootstrap interval**	**Result**
H10	Effect of PBQ on PL is mediated by PPQ	FF: .1874 LF: .3786	[.0957; 2927] [.2641; .5017]	Accepted

Appendix Q: Formula to calculate Cohen's d

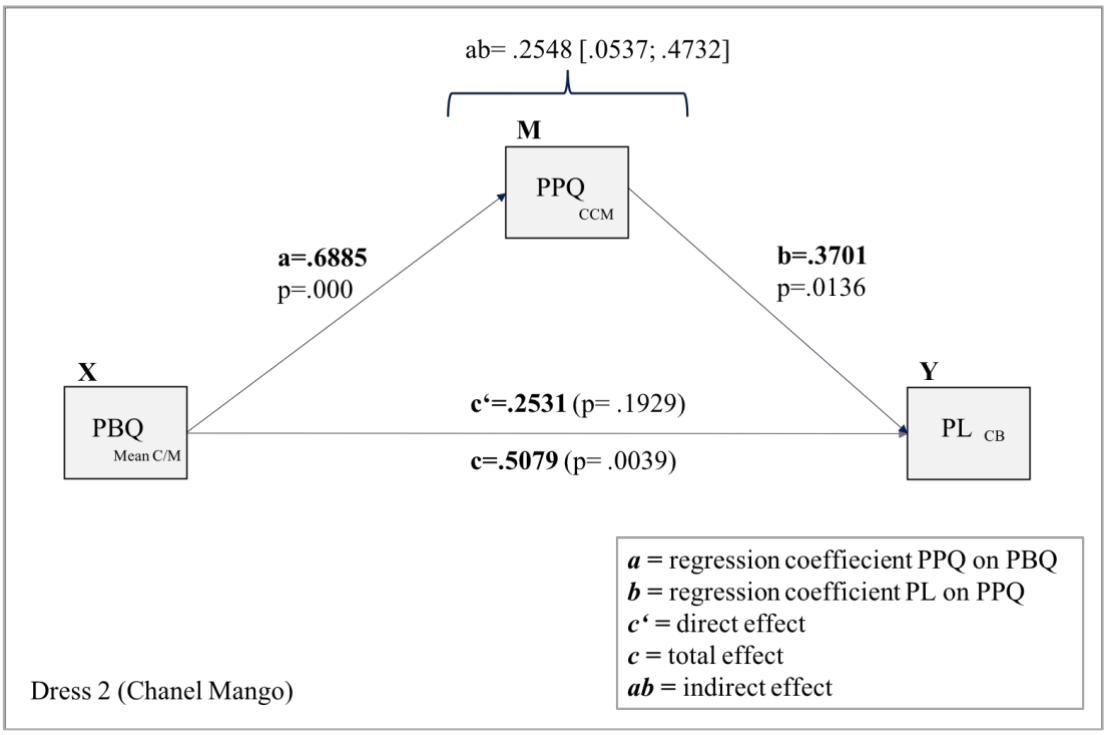
$$d = \frac{M_2 - M_1}{\sqrt{\frac{SD_1^{\,2} + SD_2^{\,2}}{2}}}$$

Source: Cohen (1988)

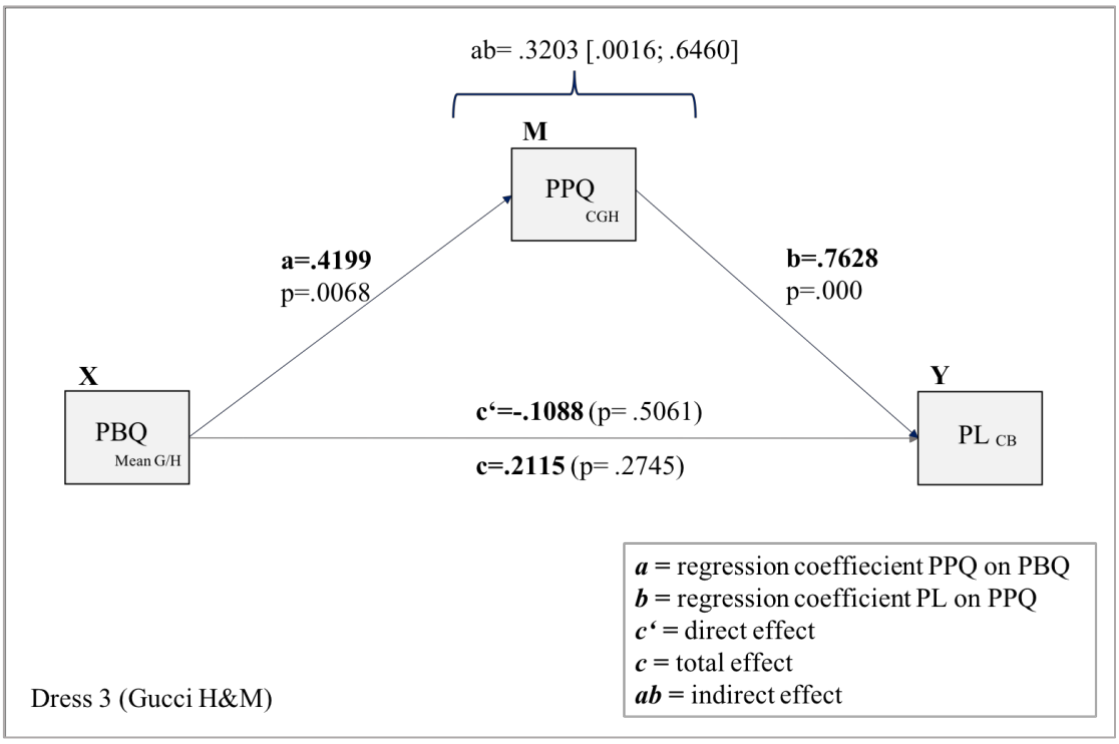
Appendix R: Regression model for dress 1 (Chanel and Mango)



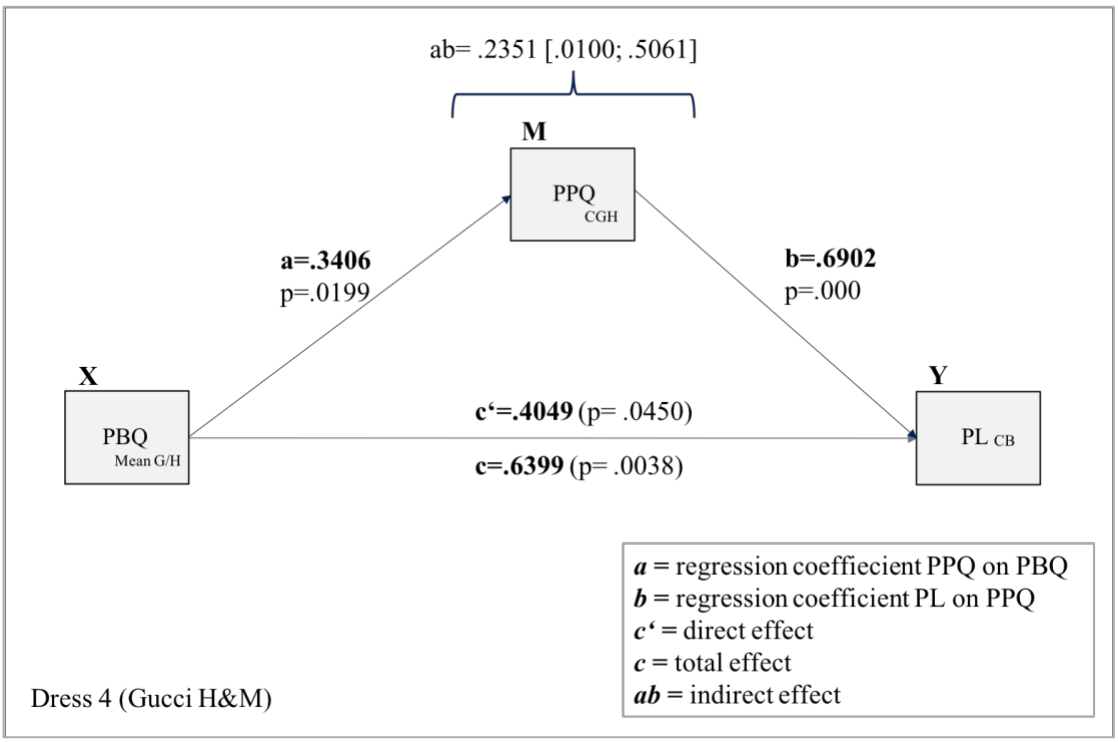
Appendix S: Regression model for dress 2 (Chanel and Mango)



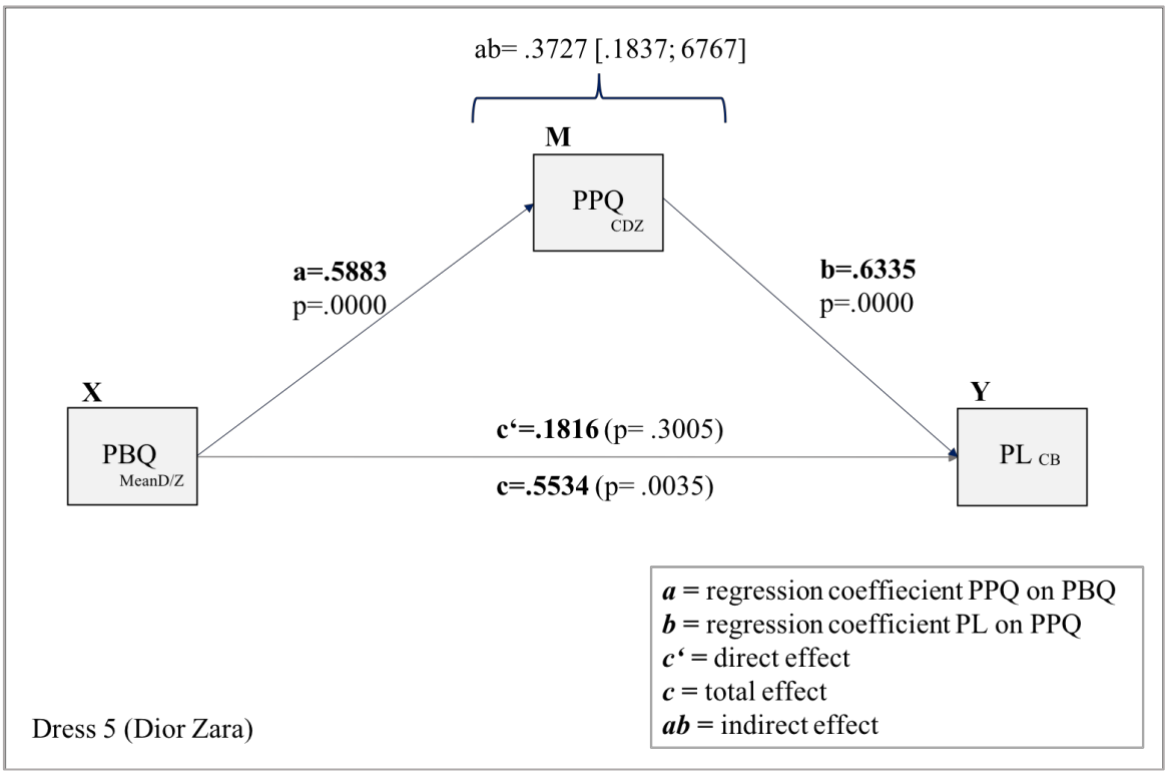
Appendix T: Regression model for dress 3 (Gucci and H&M)



Appendix U: Regression model for dress 4 (Gucci and H&M)



Appendix V: Regression model for dress 5 (Dior and Zara)



Appendix W: Regression model for dress 6 (Dior and Zara)