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Does Brand Logo Color Influence Consumer Perception of Brands?

Insights from Consumers

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Description

Author(s) Sementina, Daria	Type of publication Bachelor's thesis	Date November 2019
		Language of publication: English
	Number of pages 91	Permission for web publication: x

Title of publication **Does Brand Logo Color Influence Consumer Perception of Brands?** Insights from Consumers

Degree programme Degree Programme in International Business

Supervisor(s) Saleem, Salman

Assigned by

Abstract The persuasive effect of color is one of the most controversial and discussed aspects of marketing. It cannot be denied that a color, depending on personal background and visual impression, can be transformed into a spectrum of feelings, which, in turn, allow consumers to form a perception of a brand. Due to the fact that color is inextricably linked to consumers' attitudes towards the personality of a brand and has an influence on purchasing intent, it is crucial for brands to consider color as an important element for building brand identity. Simultaneously, a logo is seen as a business card of a brand, representing its core and values. Combining the two vital components, color and logo, the objective of this study was to analyze the possible influence of a logo's color on the formation of brand perception and to provide practical recommendations in terms of aspects that should be taken into consideration while creating a logo. Quantitative research was adopted for the study, which had a descripto-explanatory purpose. The primary data collection process was carried out with the help of a self-administered questionnaire. The research sample was chosen in accordance with the convenience sampling technique in order to ensure a wider range of responses and participants' diversity. The sample contained 139 participants (29% males and 70% females, with 1% of respondents preferring not to disclose their gender) currently residing in 39 different countries. The results of the study confirmed that there was a correlation between consumers' favorite colors and their preferences in logotypes containing the same colors. Moreover, it was discovered that age did not have an impact on the consumers' preferences in colors, whereas gender was a factor determining an attitude towards the color of pink and pink-colored logos. Finally, the characteristics that were given to brands based on the logo color were explored and explained, followed by practical recommendations in terms of matching a logo color with brand's positioning.

Keywords/tags (<u>subjects</u>) Branding, brand identity, brand perception, logo, color, brand logo, logo color

Miscellaneous (<u>Confidential information</u>)

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1 Introduction

1.1 Background and Relevance

Sight as one of the components of five basic senses has always been an integral part of humankind's activities and one cannot deny that an ability to see is inextricably linked to communication matters, perception of the world, and quality of life in general. From birth, it becomes a matter of immense significance to be able to see what is around and navigate oneself in the space. However, humans would not be able to use vision skills fully without color vision. It is generally recognized that modern people owe to the primate ancestors a favor of being capable of differentiating colors, as it helped them to survive by quickly and effectively finding ripe and colorful fruits, which were the main source of food, and consequently increased the chances of successful survival (Price 2017).

As far as colors are concerned, nowadays, there is a miscellaneous variety of industries where they are used for both commercial and non-commercial purposes. Especially, with the advent of technologies, such as digital cameras and colorful printing, people started to pay attention to colors more and more and even strive to enhance the color reproduction of the computers' screens and smartphones. This was the time when marketers gained an understanding that colors possess a persuasive effect as well (Hunjet & Vuk 2017, 42). Since then, the colors have been seen as not only a nice visual complement to a business image or brand identity but mostly as a mean of influencing consumers' minds and encourage them to form associations "dictated" by certain colors (Branthwaite 2002, 166). Eventually, brands realized the importance of colors and their role in building brand identity.

One of the most common ways to express visual brand identity is designing a logotype, since it is considered to be a business card of a brand and quite often, the first aspect that potential customers face and know about a brand (Foroudi, Melewar, & Gupta 2017, 168). Inevitably, logos contain certain colors and it is

important to optimize the use of colors in a manner that would suit a brand's vision and positioning on a market.

1.2 Research Questions and Objectives

Combining the two aspects, namely, logo and color, the following research strives to reach an objective of analyzing the possible influence of a logo's color on the formation of brand perception and providing practical recommendations in terms of aspects that should be taken into consideration while creating a logo.

In order to achieve this objective, the author developed the following research questions (RQ) to support the study:

RQ1: What is the relationship between consumers' general color preferences and their opinion regarding brands' logos?

RQ2: What is the relationship between the demographic aspects, such as age and gender, and the preferences for certain colors and shades?

RQ3: What are the characteristics that can be assigned by consumers to a brand based on the color of its logo?

1.3 Structure of the Study

When it comes to the structure of the thesis, the following paper is divided into 7 chapters. The literature review section comes after the introduction and serves its purpose of giving a deeper understanding of the topic to the author as well as familiarizing the reader with the main concepts discussed throughout the research. The second chapter provides a critical overview of the prior researches and outlines the main findings. The third chapter tells more about the theoretical framework that was built by the author for implementing the research and presents the hypotheses that are to be tested in the upcoming chapters. The fourth part, which covers methodology, explains and justifies the methodological choices of the author as well

as depicts the information related to data collection and data analysis. The outcomes of the research are reported in chapter five by demonstrating the results of statistical tests and answering the research questions. Chapter six summarized the outcomes in a form of conclusion and gives practical recommendations based on the findings of this study. Finally, chapter 7 discusses reliability and validity of the research, comments the limitations, and suggests ideas for future studies.

2   Literature Review

The following chapter provides a brief overview of the literature related to the main concepts of this thesis, which allows the author to form a theoretical background and gain a better understanding of the topics that are to be investigated in the research. It outlines the notions of brand and brand equity, brand identity and visual brand identity as well as explains the definition of "color" and tells how and why colors can be perceived by human eyes differently.

2.1   Introduction to the Concept of Brand

As Hansen and Christinsen (2003) state in their book "Branding and Advertising", the concept of brand implies a term, name, symbol, sign, design or a combination of all of the above, whose aim is to identify a product or service provided by a seller and help to stand out from a competition. Apart from that, one of the main goals of a brand is to be able to convey a clear message to a consumer demonstrating why selecting a certain brand instead of an alternative, provided by a competitor, is the right choice, thus, highlighting an added value. (12.)

Moreover, speaking about the nature of a brand, not only products or services can be branded. On the contrary, almost everything can represent a brand: from organizations and stores to cities and people, as the authors of the book propound. The only prerequisite is the fact that a brand is initially meant to create positive long-lasting associations in consumers' minds, so before establishing a brand, it is recommended to make sure that it has a particular meaning, which reflects the vision and values of potential customers as well as has a meaningful purpose that can distinguish a brand from its competitors. (ibid., 13–15.)

Furthermore, a brand is often considered to bring a promise, meaning it is capable of creating deep and purposeful relationships not only with customers but also with potential and existing employees by evoking a feeling of excitement and attractiveness towards the promise (Spillecke & Perrey 2013, 4–5).

In addition, brands give an opportunity for consumers to show who they are by giving a space for self-expression, thus, building strong links between a brand and a customer, who eventually can adopt an idea and purpose of a brand and spread it to others, becoming a brand ambassador. Also, there is a quite popular and effective conception of employees being brand ambassadors, whose essence entails the following: as ambassadors, employees are supposed to deliver a company's value and identity as a part of their own identity while interacting with stakeholders. (Andersson 2019, 703–704.)

Taking everything into account, the ultimate goal of a brand is to persuade and motivate consumers to come back on a regular basis, which is called "brand loyalty". Overall, the authors above share am opinion that obtaining a loyal customer brings lots of benefits for a company, for example, lower price sensitivity and a more positive attitude towards testing the new products or services. Moreover, loyal customers are generally more resistant towards competitors' offers and less likely to switch to another brand (Rowley 2005, 574–578).

2.2   Brand Equity

Speaking of the concept of brand equity, in consonance with Lassar, Mittal, and Sharma (1995), it is defined as brand's value, which is evaluated based on the consumers' impressions and experiences connected to a brand. As can be seen from the definition, brand equity can be either positive or negative, depending on the consumers' perception and their overall satisfaction: if a brand fails to deliver its promises and constantly disappoints consumers, brand equity is evaluated as negative. On the contrary, if people tend to think that their relationships with a brand are effective and pleasant, the equity is thought to be positive. (11–14.)

Among others, the authors list one of the main benefits that a brand could get from keeping positive brand equity, which is charging more for a product compared to an alternative provided by a competitor, even though, it might be cheaper. The reason for consumers to stick to a certain brand that maintains a positive brand equity is a

matter of trustworthiness and transparency: once a brand proves itself as a strong one, being able to deliver promises and earn consumers' trust, they are less likely to switch to a competitor due to a higher confidence that consumers place in a brand. Eventually, this confidence transforms into increased customers' loyalty and their readiness to pay a higher price for a brand. (ibid., 11.)

Brand equity is a complex and multi-dimensional conception, consisting of several components that were described and examined by many researchers (Aksoy & Akinci 2005, 237–242). One of the models that is cited most often was developed by Aaker (1991) and includes brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets (Figure 1).
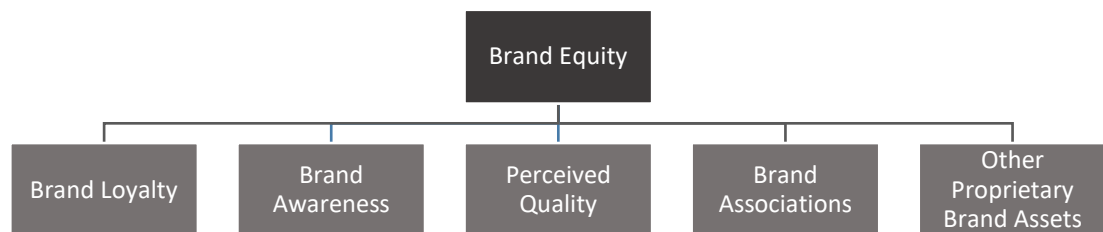
Figure 1 Brand equity model by Aaker (1991)

In accordance with Aaker (1991), brand loyalty can be defined as a measure of attachment that a customer has to one or another brand. It demonstrates the likelihood of a customer switching to a competitor, more specifically, in case a brand undertakes changes, either in a product's features or in price. Brand loyalty may be influenced by other components of the model, such as brand awareness, brand associations, and perceived quality. It is essential to remember that if one intends to measure a level of brand loyalty, it is crucial to obtain data regarding not only customers' satisfaction but, most importantly, dissatisfaction in order to be able to find out what the customers' reasons for leaving or switching to another brand are and strive to eliminate them. (44–49.)

Brand awareness refers to the extent to which people are informed about the fact that one or another brand exists on a market and what it has to offer. It is worth mentioning that there are three levels of brand awareness, from a feeling that a brand is recognized to strong confidence that the brand is one of its kind. It is a matter of significant importance for a brand to keep in mind that there is a direct correlation between brand awareness and brand equity, and the higher level of awareness is achieved, the better brand equity can be possessed. (ibid., 61–63.)

In consonance with Jorge (2015), perceived brand quality is one of the main aspects of brand equity being a key element of evaluation criteria that consumers utilize while assessing competing brands. In brief, if a brand claims a high quality and can justify it, it can become an encouraging factor for a customer to be ready to pay more due to the fact that perceived quality is capable of generating value in the eyes of customers. Generally speaking, perceived quality is most likely to be one of the aspects that consumers might consider while making a purchase decision. (147–149.)

Brand associations can be explained as a set of associations that customers have in their minds regarding any part of a brand, for instance, a brand logo, a quality of service, a product spokesperson, and even a small and unique feature or attribute of a brand. This network of associations can reflect how brand is valued among customers and how unique it appears to be in their opinion. Analyzing whether brand associations seem to be favorable, strong enough, and unique in the consumers' memory is an important step towards a better understanding of brand equity. (Roedder, Loken, Kim, & Monga 2006, 549.) As Aaker points out (1991) an association usually represents a subjective perception of a customer, not necessarily being an objective reality, that is why it is crucial for a brand to choose the right positioning. Generally, wise positioning is accompanied by strong associations, giving an advantage over competitors. (100–101.)

As far as other proprietary assets are concerned, these are the tools that can help to maintain a brand's competitive advantage. They include intellectual property rights, for instance, patents or trademarks; a distribution channel if it is controlled by a brand; and other financially measurable assets. (ibid., 27.)

2.3 Brand Identity and Visual Brand Identity

2.3.1 Brand Identity Defined

The term "brand identity" has been reviewed and defined by many scholars, yet the concept remains abstract and can be described in several ways (Bravo, Buil, Chernatony, & Martinez 2016, 4).

On the one hand, in consonance with Ghodeswar (2008), brand identity refers to the elements that a brand possesses that make it stand out from the competition and help to build strong relationships with its customers. The notion implies how an organization identifies itself and what features it acknowledges to have in order to be perceived on the market in one or another way. Brand identity is based on a deep understanding of customers' attitudes, needs, and values as well as competitors' awareness, and knowledge of an industry a company is operating in. (4.)

On the other hand, according to Wheeler and Millman (2017), brand identity can be described as some features of a brand that are tangible and appeal to human senses. Brand identity is supposed to improve brand recognition and enhance differentiation on a market. The authors believe that great design is what matters, as it is able to turn intangible emotions and essence of a brand into something tangible and visible, which consumers appreciate. (3–4.)

Mistakenly, the term "brand identity" sometimes is used interchangeably with logo, which is not always right. Undoubtedly, a logo is a significant element that plays a vital role in designing a brand identity, however, it includes many more aspects than that. For example, a brand's name, which is represented and visualized by a logo, is equally important and should be chosen carefully. Even such tiny details as a color used in email newsletters and background music played while customers wait for a phone to be picked up during a call, matter in creating a brand identity. (Budelmann, Kim, & Wozniak 2010, 7.)

Taking everything above into consideration, there are multiple benefits of creating and maintaining a strong brand identity. Firstly, it contributes to the development of continuous and sustainable competitive advantage, which is complemented by a

better differentiation on a market. Secondly, a consistent and well-thought identity can assure adding value to a brand's products or services in the eyes of customers. Thirdly, speaking of the internal affairs of a company, a sustainable and distinctive brand identity can motivate existing employees to perform better and at the same time, increase the probability of attracting candidates, possessing higher qualifications, for upcoming open positions. It is generally recognized that satisfied and loyal employees can become not only the links between a brand and customers but also encourage better and applicants with matching skills to join a brand as staff members. (Bravo, Buil, Chernatony, & Martinez 2016, 4–5.)

2.3.2   Brand Identity Prism

Although the concept of brand identity was explored by many researchers, there is still no mutual agreement on what its components are. Nevertheless, there is a thought that the majority of the scholars agree on: the notion of brand includes a social dimension, whose purpose is gathering people into communities, sharing the same vision as brand does, where brand identity plays a key role in forming consumers' perceptions of a brand, thus, motivating them to either stay with a brand or find another one, whose values seem to be more relevant and appropriate to share, according to their personal views and beliefs. (Ciceo 2013, 18–19.)

In regard to the statement above, in his book, Kapferer (2012) describes the six dimensions of brand identity that theoretically can characterize any brand: physique, personality, culture, self-image, reflection, and relationship. As can be seen in Figure 2, these components are organized as a diagram to clearly present a relation between each other and show their position between a brand (sender) and a customer (recipient).
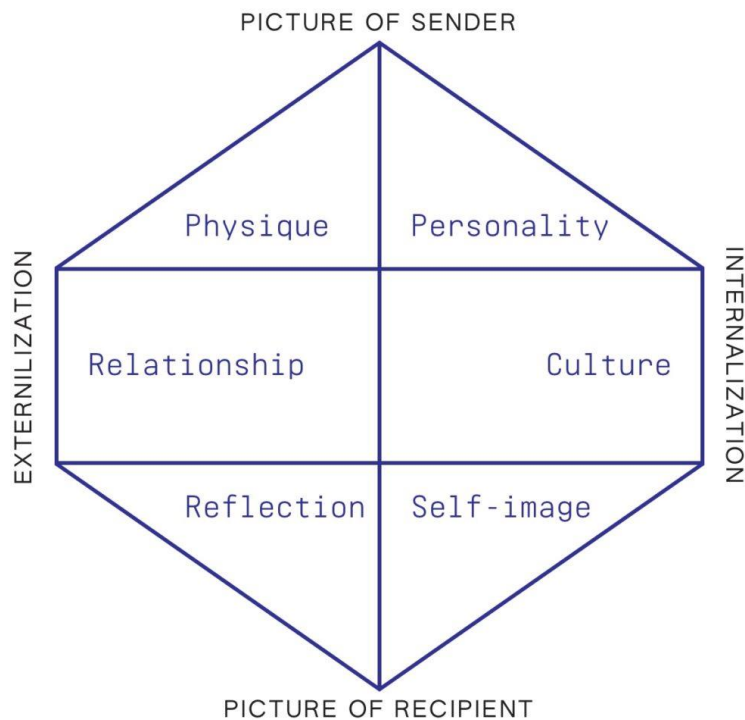
Figure 2 Brand Identity Prism according to Kapferer (2012)

Two elements on the top (physique and personality) comprise the picture of a brand, while the other two aspects in the bottom (reflection and self-image) refer to a customer who interacts with a brand. The left side of the prism demonstrates the external components of brand identity, while the right side – internal, although the boundary between them can be vague. (149–156.)

By physique, Kapferer means everything that physically represents a brand, for instance, logo, design of products, quality of materials, etc. Usually, companies embed in physical elements those values and unique features, which can be expressed in a tangible way. (ibid., 158–159.)

Brand personality appears as a result of a brand's interaction with the external world. Personality of a brand is basically an imaginary projection of what characteristics it could acquire if it was a human being. It requires a lot of effort to build a brand personality and it can be seriously affected by a target audience of a

company, since a communication style of a brand, thus a part of personality as well, should go in line with the target audience, otherwise, the result of creating a brand personality can turn out to be negative. (ibid., 159–160.)

One more aspect that has a great impact on brand identity is culture. Kapferer (2012, 160) defines brand culture as a set of values that are inherent in a brand and lies in its core. Sometimes, the brand culture can also contain some elements that are dominant in the culture from where the brand originates.

Self-image can tell how customers feel themselves being a part of a brand. Often, it is called an "internal mirror of customers", showing how they see and position themselves in relation to a brand. (Ciceo 2013, 19.)

While self-image is primarily focused on customers' feelings, reflection is used by marketers to make an estimation of what a potential brand's client could be like and what could interest him or her. It is believed that the better the reflection stage is executed, the more effective results future marketing campaigns will bring, as there is a higher chance that they will resonate with potential customers. (ibid., 19.)

Finally, the relationship component is designed to identify what communication and behavioral styles a brand should choose in relation to its target audience, as well as a manner of delivering services and promises. As an example, at the relationship stage of analyzing a brand's identity, a company can decide if it wants to be present on social media and to which extent. Young and modern brands tend to expand their presence online, carrying out the majority of actions on the web. In contrast, mature and professional brands can eliminate online presence at all. (ibid., 20.)

2.3.3 Visual Brand Identity Defined

Nowadays, brand communication is experiencing a shift towards becoming more and more visual (Phillips, McQuarrie, & Griffin 2014). In their research paper, the authors highlight an important aspect that belongs to the notion of brand identity and has an impact on how a brand is being perceived on the marketplace – visual brand identity

(VBI), e.g. a logotype, symbols, a type of font used etc., which allow to create a coherent personality for a brand. Inevitably, having a decent understanding of the design and constructing proper visual elements is becoming an issue of great importance for today's marketers. (318–319.)

In short, the visual identity of a brand is a set of visual elements that a brand possesses with the purpose of creating certain emotions and feelings within its customers, resulting in shaping the experiences they have with a brand (Phillips, McQuarrie, & Griffin 2014, 227–231).

According to Branthwaite (2002, 164), consumers became more demanding and are in the process of developing a critical attitude towards conventional and formal marketing messages, especially, with the advent of the digital era. Furthermore, since it was needed to put substantially more effort into impressing consumers, the competition between brands escalated. On the marketplace, a wide range of offerings appeared that functionally differed from each other. Thus, it undoubtedly shaped the way of consumer behavior and decision-making. As a result, it was necessary for brands to come up with innovative and fresh ideas for advertising their products, and today, the visuals are being used more often than words in marketing campaigns and advertisements. (Hammond 2015, 64.)

There are several benefits that brands are aware of when giving a preference for imagery instead of words in their advertising campaigns. Naturally, in a human body, the sight is considered to be the strongest among all five senses (sight, smell, hearing, touch, and tasting), meaning that any piece of information is better perceived by a person being derived from visual receptors. (ibid., 227.)

In addition, speaking of the time spent on looking at a regular advertisement, the largest share of the time goes to observing a picture in case there is one present in the advertisement (Percy & Elliott 2009, 324).

To sum up, imagery and visual components are nowadays regarded as a crucial intermediary taking part in the communication process, happening between a brand and consumers (ibid., 325).

As far as the most common components of visual brand identity are concerned, they include:

- logo,
- color,
- symbols,
- typography,
- shapes, and
- packaging design.

Logo, colors, symbols, and typography are known to be the basic components of the visual brand identity concept.

Logo or logotype serves as a unique identifier of a brand making it recognizable and memorable within consumers, which is usually expressed as an image or a graphic object (Peterson, Al Shebil, & Bishop 2015, 746). According to Bresciani and Paolo (2017), a brand logo constitutes complex stimuli containing several visual features, with the help of which a brand's meaning is being communicated. In a logo creation process, every small detail matters, and one should be careful while choosing their logo's shape, appearance, color, font type, and patterns because the design principles, chosen at an early stage of a logo creation, can affect the consumers' perception of a brand in a long-term run. A logo can be represented as an icon, designed as a word or even a phrase. The selection of a logo should be based on the meaning of a brand and the way it is positioned. A proper logotype should reflect the values of a brand and depict its image being a point of recognition for customers. However, despite the fact that a logo should explicitly tell about a brand, it is recommended to keep its design simple and clear in order not to seem overwhelming. Overall, it is believed that logo design can have an impact on the corporate image and brand perception. (375–378.)

In marketing psychology, color is thought to be one of the most effective factors to use for creating brand awareness and demonstrating a brand's characteristics. Some researchers are confident that colors evoke brands and stimulate better customers' responses, being a certain trigger to choose one brand over another if the color is specific enough. In fact, colors are capable of creating associations and arising

emotions, which is more effective when it comes to making a packaging distinctive. Generally, picking the right color can turn out to be more efficient compared to words or images. (Tutssel 2001, 8.)

The notion of color is to be explored more in-depth in the upcoming sections.

When it comes to symbols, these are defined as a visual characteristic of a brand, which is a part of brand stylistics. A symbol's main target is to serve as a unique indicator of a brand, highlighting differentiation and creating brand awareness. (MacIniss, Shapiro, & Mani 1999, 602.) As it was mentioned above, due to the fact that people are generally better at learning and memorizing images than words, brand symbols can be great instruments in creating long-lasting brand associations and having an impact on brand loyalty and perception (ibid., 603).

A properly functional brand symbol should be easily noticeable and uniquely designed with a brand name supporting its level of recognition and being closely related to a brand name. The same principle of arising positive emotions and associations, which is being used while creating a logo, can be applied to a symbol. Also, it is important to keep a symbol practical and functional, for example, the size of a symbol should be scalable, so that it can serve its purpose equally well on diverse platforms, in different contexts, and both offline and online. (Bettinger & Tracey 2002, 19.) In case consumers are exposed to a brand symbol very frequently, it becomes as strongly recognizable as a brand name, if not more. Rarely, a brand can become a cultural icon itself.

Moreover, speaking of the uniqueness of a brand symbol design, not only it is capable of being an indication of a brand but, thoroughly created and implemented, it can serve as a protection from illegal imitators and intellectual property law violation. (Aaker 1991, 202.)

In consonance with Meyrick and Taffe (2019), typography is an art of designing and combining letterforms, spacing, and layout of sentences and words, which is considered to be a very memorable and distinctive feature of a brand. Initially, typography is organizing a text in an engaging, visually attractive, and interesting way. In branding, typography represents the values and tone of a brand, the same as

color transmits a visual message to customers. Essentially, almost every component of visual brand identity and its perception by consumers are subject to an influence of typography. For example, customers' attitude towards a brand's website, posters, packaging, social media appearance and many more aspects partly depends on a style of typography, e.g. positioning of a text and even a choice of font, since sometimes, it can be overwhelming and difficult to read, which will inevitably turn a reader away, no matter how interesting a content is.

Similar to colors, logos, and symbols, typography hides a brand meaning and message behind it, which is being expressed in a form of letters. (3–4.) Some of the typographic styles are eloquent, displaying and revealing content, whereas others are more secretive, giving a preference to expressing meaning beyond the font and linguistic carriage of letters (Warde 1955, 124).

Overall, in accordance with Mothersbaugh and McCarthy (2002), typography can be seen as a sum of three parts: typeface characteristics, spacing, and layout. Diverse typeface options affect the letters' appearance, for instance, height, size, style, color, etc. As for spacing, it can be described as an interval or gap between letters within one word, between words in a sentence, and between two separate lines of a text. Layout is a way the text blocks and words are positioned in a blank space, for instance, some components of the layout are columns of text, their quantity, and length, as well as consistency of text in relation to other aspects of an advertisement. (665–666.)

2.4   Brand Perception

In fact, the term brand perception speaks for itself, in other words, essentially, it implies how customers perceive a brand and what their opinions of a brand are. Brand perception is connected to a notion of "brand attitude" that stands for an evaluation of a brand by consumers, taking into account the brand's beliefs, values, and promises. (Olson & Mitchell 1981, 319.) Nevertheless, it was investigated that there is a close relationship between brand attitude and brand perception due to the

fact that brand attitude has an impact on consumers' evaluation of brand, thus shaping brand perception as well (Aaker and Keller 1990, 29).

Brand perception is often seen as a reflection of how diverse stimuli created by a brand are being received and interpreted by consumers. It is believed that brand perception is formed within consumers' minds in an unconscious manner, meaning that brand perception itself contains several elements of sociological and psychological processes. Thus, a substantial share of purchasing decisions and the formation of brand perception emerge automatically, not being noticed by an individual. (Jansson-Boyd 2010.)

It is generally recognized among psychologists, that there is a wide range of psychological aspects that play a role of factors, influencing a formation of brand perception. However, there are several components that are being addressed to more often, namely, the associative networks and anthropomorphism. (Helbling 2018, 17.)

According to psychologists who closely work with consumer behavior issues, associative networks have a significant impact on an individual's brand perception construction. Briefly, these networks are being built as a result of processing memory associations related to different experiences, that were gained by a person, and later transformed into cognitive models stored in memory. Eventually, the formation of associative networks has a straight influence on consumer behavior and purchasing decisions. (Keller 1993, 11.) In consonance with the associative network memory model, knowledge can be defined as a set of concept nodes connected with the help of links, which tend to strengthen in case two things co-occur. Thus, for a brand, it is crucial to establish and nurture relationships with clients in order to arise and, most importantly, sustain an image of a brand in customers' minds (Helbling 2018, 19)

Brand anthropomorphism stands for applying humanlike traits and behavioral patterns to an object, for example, a brand, which leads to a humanization of that object. Anthropomorphism is considered to be an effective technique in marketing because it allows to strengthen a consumer-brand connection and encourage

customers to choose a humanlike brand over non-anthropomorphized competitors. (Fournier 1998, 345.) The most commonly used tactics in anthropomorphism are either creating characters representing a brand/product, that resemble humans, or giving a product name that indicates social roles and even family relationships, for instance, "Granny's Secret". Generally speaking, anthropomorphism is based on the fact that by nature, people tend to look for social connections and belong to a group rather than staying alone. (Puzakova & Aggarwal 2018, 871.)

To sum up, there are several techniques that marketers utilize while pursuing an objective to create a strong brand perception among consumers, which ideally could lead to increased brand loyalty and trust. In addition, it is noteworthy that brand perception as a phenomenon has its roots going to human psychology and it could be useful for a brand to conduct a research on that aspect and analyze its target audience before coming up with means of reaching a target of creating a specific brand identity in order to get better results. (ibid., 884.)

2.5   The Concept of Color

According to Van Heule (1995, 30), color can be determined as variations in light that a human's retina can pick up and identify falling into the wavelength range of 380 nm to 770 nm. Usually, people tend to come up with an association or to add a descriptive word before naming a color in order to remind themselves what color is like and to diversify the hues. For example, Sky Blue or Wine Red (ibid. 31).

In addition to the definition above, in consonance with Singh (2006), color as a phenomenon can be described as a light, which is being carried on different wavelengths, absorbed by humans' eyes and transformed into a color by the brain. Light can be broken down into a spectrum consisting of six different colors: red, orange, yellow, green, blue, and violet with the red color possessing the longest wavelength and violet – the shortest. (783.)

Normally, there are three main properties of color, which can be combined in different proportions in order for a color to be perceived by the brain. These

components are value, hue, and chroma. Value stands for an extent to which a color is light or dark; hue refers to the color itself (red, green and blue); and chroma accounts for how intensive color is. (Thompson, Palacios, & Varela 1992, 12.)

Researchers highlight three discrete categories of color, specifically, cool, warm, and neutral colors, where red, yellow and their hues are considered to be warm colors, blue and green are regarded as cool colors, and white, black, and gray – neutral. In a marketing sense, warm colors are thought to be more effective in drawing attention to a logo or packaging, whereas cool colors generally have a better effect in arising a feeling of calmness. (Grosmann & Wisenblit 1999, 81.) Although it is not scientifically proved that colors or color preferences can influence a human's personality, yet some doctors use color tests in order to assess mental health, believing that colors are capable of shaping humans' emotions (Kaiser 1984, 31). Possessing this information can become an asset of great importance for a brand, since quite often, the first feature of a package or advertisement that grabs attention of a consumer (Kauppinen-Räisänen & Luomala 2010, 290).

Speaking of the marketing industry, color is widely used in branding, product packaging and advertising, serving to achieve the ultimate goal of enhancing brand recognition and a better recalling of a brand or a product among consumers (Beneke, Mathews, Munthree, & Pillay 2015, 167). The reason for that is the fact that by providing visual information, color plays a role of a communication tool, which is extremely relevant for marketers and brands in their pursuit of conveying a marketing message. Furthermore, colors are capable of transmitting brand positioning and outline a product's advantages if chosen correctly.

Moreover, in consonance with Harfmann (2019, 36–38), similarly to any other industry, there are several trends in a marketplace regarding the use of colors in marketing purposes, namely, for packaging and logotypes. Although trends come and go, brands are aware of the fact that knowing the customers' preferences and establishing a connection is a key to success. This is the point where a carefully chosen color, which is relevant to a targeted customer segment with certain demographic and psychographic characteristics, can give a big advantage to a brand. (ibid.)

Furthermore, in accordance with Foroudi, Melewar, and Gupta (2017, 176), the selection and design of a favorable logo for a company is a crucial and complex process due to its ability to convey a message and tell about a company's philosophy as well as to demonstrate a size and scale of an organization. What is important is that a properly chosen color for a logo can change an attitude of consumers and make the desired first impression to a customer. (ibid.)

2.6 Perception of Color

It is crucial to keep in mind that each person is unique, which can also be applied to eyesight and an ability to differentiate colors. In simple words, each eye perceives color in a little bit different manner from the next, which eventually leads to differences in color perception as such (Grossman & Wisenblit 1999, 79).

Although people have a tendency to change their preferences for colors throughout their lives, it was discovered that a color preference and responses to colors can be learnt by applying associative learning, which appears when individuals subconsciously connect events and environments in which the events took place. Consequently, it is presumed that a color preference can be represented as an artificially learnt response to color stimuli. (Beneke et al. 2015, 168.) Furthermore, it was discovered by neuroscientists that associative learning in relation to the color preferences starts developing at the early stages of visual processing, which technically should have served people for fast decision-making and survival in ancient times (Albright & Schlack 2007, 883).

However, there is an opinion that there might be an inverse relationship between the color response and a consumer's choice of a product packaging, again, due to associative learning. Naturally, some people have already formed associations in terms of what type of color is more suitable for a certain type of product. In this case, a product itself plays a dominant role in the process of choosing between differently colored packaging. (Kauppinen-Räisänen & Luomala 2010, 288.)

As it was previously mentioned, color perception as a fact is subjective and depends on personal factors and circumstances, such as gender, cultural background.

Moreover, the meaning of colors can be interpreted differently according to one's values, beliefs, and previous experience as well as a situation and context. (Grossman & Wisenblit 1999, 81.)

2.6.1 Colors and Gender

It was found out that there is a divergence in color perception between men and women. Both genders name the blue color as their favorite most frequently, with the least favorite being either black or white, although men were generally more tolerant of black, white, and its combination – gray. A peculiar fact is that violet is stated as the second most favorite color of women, whereas men do not mention this color at all. For men, the least appealing color is usually brown, while ladies named orange. Obviously, there are diverse opinions on a color palette in relation to gender. Also, it is worth mentioning that the impressions of one or another color can be influenced by its value, hue, and chroma, which is a common factor for both genders. (Khouw 2002.)

In addition, it is known that in some countries, societal conformity encourages people to avoid certain colors on the basis of an overall picture of gender as a concept. For instance, pink is thought to be a feminine color, which is being associated only with girls. However, if the association is changed successfully, pink can become a men's attribute. In this example, it can be clearly seen that in some cases, even society puts pressure on people and has an influence on color preferences, demonstrating the power of social constructs.

Speaking of the marketing industry, a marketer can utilize this knowledge effectively while matching a color, which is subject to societal conformity, with a certain product that is targeted based on gender. (Grossman & Wisenblit 1999, 84.)

2.6.2 Colors and Culture

According to Wiegersma and Van der Elst (1988), inevitably, the fact of belonging to a certain culture and having a specific cultural background has an effect on one's

color perception. In consonance with their study, although some colors were named as sacred colors by representatives of certain cultures, the people belonging to other cultures did not even identify them as colors. Moreover, except for some colors being sacred, there are quite common practices of using colors in ceremonies and other events, which, undoubtedly, has an impact on the color impressions of inhabitants of those cultures, increasing the likelihood of these colors being listed as the most favorite ones. (309.)

Moreover, diverse cultures tend to attach different meanings to colors. For instance, the gray color is considered to be an attribute of a cheap product in Japan and China, whereas American consumers expressed exactly an opposite opinion, associating gray with the word "expensive". (Jacobs, Keown, & Worthley 1991, 24.)

One more example of a discrepancy in the color perception influenced by culture is the perception of yellow: in the most parts of North America, yellow is seen as a sign of happiness and joy, while in Latin America, people regard it as an expression of sadness and even death (Salonga 2019).

Green can be also perceived differently across cultures. For instance, in the majority of the countries it is associated with environment and nature, nonetheless, in North Africa, it can be associated with corruption. Whereas Japanese people see it as a color symbolizing eternal life. (ibid.) For marketers, it is recommended to learn consumers' associations with colors in order to understand an emotional component of color better rather than investigate color preferences among customers in general (Grossman & Wisenblit 1999, 81).

As can be seen from the examples provided above, it is not difficult for a brand to make a fatal error while expanding to other countries neglecting prior research on the topic of color, since sometimes, how a brand is going to be perceived depends on the color choice.

2.6.3 Meaning of Colors

According to Birren (1973), colors have symbolic meanings for all people and knowing these meanings can be useful in the situations of consumption for customers. In this way, red color is often associated with danger, blue and green – with intelligence and sociability. (14–15.)

Thus, for example, in packaging, it is vital to adhere to colors that arise those emotions that a brand intends to arise in consonance with its identity, as colors can signify attributes of products. For instance, using black color for packaging food or medicine is not always the best choice because consumers can associate it with poison, as it was discovered during an interview with consumers at a pharmacy, where they admitted the reason for avoidance of a certain kind of vitamins packed in a box of dark color (Lane 1991, 145). At the same time, black can be linked to masculinity and strength if used for a men's cologne packaging (Grossman & Wisenblit 1999, 82).

Although the examples above are generalized, it is crucial to keep in mind that the color impressions are learnt by people individually. The preferences for colors are a result of associative learning that took place during past experiences with the same product category and can be changed throughout life. (ibid., 83.)

3 Theoretical Framework and Hypotheses

3.1 Theoretical Framework

As Adom, Hussein, and Agyem accentuate in their research paper (2018, 438), a theoretical framework is a tool that helps investigators to navigate their research and serves as an explanation of a path that was chosen for pursuing a study. Moreover, according to Grant and Osanloo (2014), a thoroughly developed theoretical framework can bring several benefits to a study. For instance, it showcases the structure of future research and displays the theories that support it. Furthermore, it is propounded that a theoretical framework allows contextualizing the existing theories into a present study effectively, making it possible for a researcher to be guided during the processes of selecting the research design and planning of data analysis. (12–13.) As can be seen, both groups of authors assure that a theoretical framework assists in defining a clear and comprehensive plan of actions that can turn out to be a great tool guiding an investigator towards achieving the research objectives.

In consonance with the preceding studies, color psychology is a discipline that implies studying various emotions, mood and behavior of people, which are caused by colors (Hunjet & Vuk 2017). Moreover, previous researches prove that every person perceived a color differently. Color is regarded by marketers as a valuable tool that is capable of transmitting the right message and generally assists in the process of marketing communication. (43–44.) The researchers declare that colors are being widely used in advertising, as stimulation for purchase. One more industry that actively utilizes colors is packaging. (ibid., 48.) That is why the authors profess the view that especially in the marketing context, it is crucial to choose the colors that suit one or another situation in order to convey the most accurate and suitable marketing message.

In addition to the fact that it is important to choose a suitable color that fits into a context of a marketing message, it is recommended to learn about customers to

whom the message is to be sent. This thought is upheld by Shi (2013, 5) who assures that nonetheless some of the colors are more favorable among marketers to use in advertisements or even physical stores, the gender, age, and cultural background of the target audience cannot be neglected, thus encouraging the marketers to utilize colors according to the expectations of the customers. In his article, Shi informs that a cross-cultural approach is inevitable to be developed in relation to the use of colors in case a brand's strategy implies a global perspective (ibid., 5). Moreover, speaking of the customers, in the research that was undertaken by Grossman and Wisenblit in 1999, it was discovered that there is a high probability that consumers who interact with a brand and its products have already formed their preferences in terms of colors that are more suitable for each product category (82–83). It means that customers tend to assign certain characteristics to the products based on their associations in relation to the colors, which works the same way with assigning characteristics to brands, thus forming a certain brand perception.

When it comes to brand perception, it is known that one of the important components assisting in shaping consumers' perception is visual brand identity. Aside from other aspects, visual brand identity includes logotypes that are considered to be a business card of a brand, since quite often, customers face a brand's logo first, before interacting with a brand. (Schmidt, Simonson, & Marcus 1995, 86.) As Foroudi, Gupta, and Melewar propose (2017, 179), designing a logo that would serve the needs of a brand and convey a precise message, at the same time outlining the uniqueness of a brand, is a complex and multidimensional process. As can be seen, the researchers agree that a logotype is an essential tool for communication, which cannot be underestimated.

Concerning the issues that were described above and investigated by other researchers, the author was encouraged to conduct a study combining all three aspects: the meaning of colors, logotype, and brand perception. Based on that, the following theoretical framework was established (Figure 3).
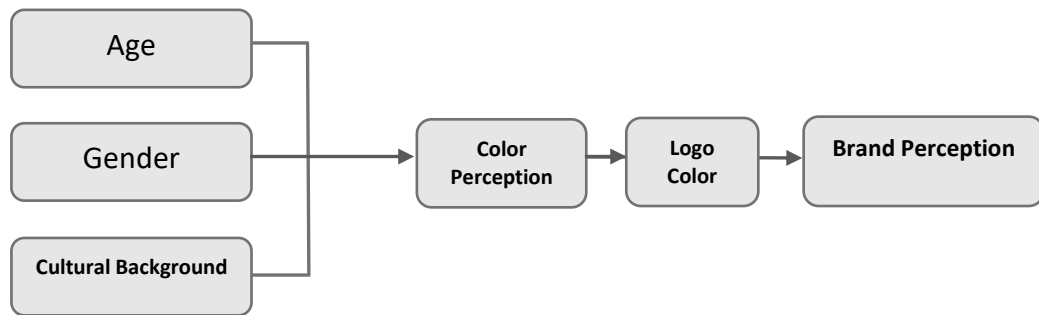
Figure 3 Theoretical Framework

3.2 Hypotheses

In relation to the theoretical framework that was elaborated in the previous section, the following study proposes 6 hypotheses to be tested, which are based on the research questions outlined in the Introduction. The first hypothesis (H1) is aimed at diving into the subject of color psychology and investigating how the consumers' preferences in colors may affect an attitude towards a brand's logo. The second and third hypotheses (H2 and H3) test the relationship between the respondents' age and gender and color preferences. Finally, the fourth, fifth, and sixth hypotheses (H4, H5, and H6) cover the topic of color meanings and their influence on brand's logo perception as well as characteristics assigned to a brand by consumers based on the logo color.

3.2.1 Influence of Color Preferences on Logo Perception

As it was stated earlier, people generally have various color preferences in daily life. However, their assumptions regarding colors and their use in particular industries may differ, which is supported by the research of Voordt, Bakker, and Boon (2016, 155). It is also known that colors surround people from the very beginning of their lives and people start learning the color meanings at an early age. Eventually, color preferences are formed due to the fact that colors are capable of affecting people subconsciously, either attracting or turning an individual away. (Hunjet & Vuk 2017, 44.) As for the business world, brands are famous for utilizing colors to be associated

with those colors or sometimes even specific shades. One of the most common ways to utilize color and draw consumers' attention is embedding it in a logo. (Foroudi, Melewar, & Gupta 2017, 178.) Also, the authors stress that a logo can be considered as a visiting card of a brand, thus, it is crucial to design it carefully including the use of proper colors (ibid., 179). Therefore, combining these two aspects, the author proposes the first hypotheses:

H1: Consumers tend to prefer logos that contain the colors they find more appealing among others.

3.2.2 Influence of Age on Color Preferences

To begin with, in his book, Faber Birren explains that the way people perceive colors is defined by the light wavelength (2013, 132). Each color has its wavelength, with purple known to have the shortest one and red – at the longest. Some of the colors are being easier to recognize for a certain age group. For instance, little children naturally give preference to clear and bright colors because their eyes are not fully developed yet and it is easier for them to recognize this type of color. There are even several color therapies created and implemented in order to help children form associations that have an impact on developing children. (ibid., 152.) However, Birren remarks that as people mature, they tend to prefer darker colors of a shorter wavelength. On the other hand, the research conducted by Lee, Gong, and Leung in 2009, debates Birren's point of view declaring the outcomes that revealed older people to prefer such colors as yellow and red to gray and black (1843–1844). To further examine the color perception phenomenon depending on age, the author postulates as follows:

H2: As people grow up, they prefer dark colors to bright colors.

3.2.3   Influence of Gender on Color Preferences

Speaking of how gender affects the preferences in colors, it worth mentioning that in a context-free situation, people tend to indicate preferred colors freely, whereas when it comes to a situation where one's choice is to be seen or evaluated by others, people can blend in the societal norms and beliefs and pick the colors representing masculinity or femininity just because they belong to a certain gender (Bonnardel, Beniwal, Dubey, Pande, & Bimler 2017, 209). Another aspect that can put pressure on individuals while reporting a favorite color is cultural gender-based stereotypes and labels. Since childhood, children start identifying themselves with a certain gender, which occurs with the help of the surrounding society. Through associative learning, children also differentiate colors "for boys" and "for girls", such as blue and pink. (Weisgram, Fulcher, & Dinella 2014, 402.) Perhaps, pink is one of the most controversial colors regarding the topic of gender labeling, which made a long path from being considered as "girlish" to becoming actively used nowadays to promote gender equality and freedom of choice. For this reason, in this study, the author was encouraged to find out whether gender affects the perception of a pink-colored logo. Thus, the third hypothesis is stated as follows:

H3: Women have a more positive attitude towards the pink-colored logo compared to men.

3.2.4   Influence of Color Meanings on Logo Perception

Following the explanation provided in the literature review, different colors are associated with various meanings. Undoubtedly, the knowledge of the meanings can help to build relationships with customers or design brand identity. For instance, according to Hunjet and Vuk (2017, 49–50), as for product packaging, red color is capable of grabbing attention of consumers, orange is associated with adventure and entertainment, whereas yellow expresses creativity. On the other hand, another research that was carried out by Amsteus, Al-Shaaban, Wallin, and Sjöqvist in 2015, reporting that the color black is associated with the whole spectrum of adjectives.

For example, black color was named as sad, powerful, luxurious, and angry. (35–36.) To sum up, as can be seen from this example, each color can be assigned with many associations that sometimes contradict each other. Moreover, the previous studies predominantly discuss the impact of color used in product packaging, whereas this research focuses on the use of colors in logotypes. Thus, the author hypothesizes as follows:

H4: Logos that contain the black color as a dominant color tend to be perceived by consumers as "luxurious".

H5: Purple logotypes are associated with mystery and extravagance.

H6: The use of red color in a logo encourages consumers to perceive a brand as energetic and powerful.

4 Methodology

The following chapter was designed in order to provide the information regarding the methodological choices of the author and present the justification of the research design chosen for the study. Moreover, this chapter contains the theoretical background related to the subject of research design. Besides, the processes of data collection and data analysis are covered in this chapter.

4.1 Research Purpose

Depending on the nature and aim of academic research, either exploratory, descriptive or explanatory purpose can be adopted.

Exploratory purpose implies undertaking a specifically developed research design in order to discover a phenomenon and recreate an actual image of a series of events. Exploratory research emphasizes the development of a theory based on data gathered. This type of research is often conducted when there is no or little scientific information available about an object of the research and it is believed that the outcomes will contain knowledge that is worth exploring. (Stebbins 2011, 5.)

According to Nassaji (2015), the aim of descriptive research is to study and describe an unknown phenomenon and its characteristics. This type of research is primarily focused on analyzing how and why something happened earlier or happens in the present time. (129.) The descriptive research specializes in describing, clarifying, and explaining inner properties and relationships, aiming at portraying an accurate profile of situations, events or people (Robson 2002, 47).

Explanatory research is recommended to utilize when a researcher sets the objective of focusing on cause-effect relationships and intends to explain what factors can become a cause for one or another effect (Yin 1994, 101). Usually, the explanatory research is carried out in a form of analysis investigating in what way one variable influences changes in another variable, identifying and analyzing dependent and

independent variables. In explanatory research, one employs hypotheses or theories and explains relationships, if any, between the forces and the outcomes of a phenomenon that was caused by those forces. Occasionally, research can entail a combination of purposes, for instance, being descripto-explanatory. (Saunders, Lewis, & Thornhill 2009, 138–141.)

The following research has an explanatory purpose, whereas partly being descriptive. Therefore, it can be defined as descripto-explanatory due to the fact that one of the goals of the research is to test whether the color preferences in daily life can result in consumers being predisposed to forming a more positive attitude to a brand, whose logo contains their favorite color. At the same time, one of the objectives of the research is to find out what meanings can be assigned to colors by people, thus describing the data that was obtained and transforming it into a conclusion and practical recommendations for companies planning on creating a logo.

4.2   Research Methods

In consonance with Walliman (2011), a research method can be defined as tools and techniques used for the development of a systematic and well-elaborated plan, according to which a researcher conducts a study. Technically, there are two research methods that are commonly used among researchers: qualitative and quantitative. The methods serve diverse research purposes and have several differences that are explained further in this chapter. (2–3.)

The qualitative method implies a naturalistic and interpretive approach to a subject that is being studied and to the world as such. Qualitative research seeks to understand a phenomenon in relation to a broader context and entails deriving findings by talking to people and finding out their opinions as well as observing a phenomenon in any kind of context where it unfolds naturally. This method does not imply using statistical procedures or any other means related to quantification. (Patton 2001, 39.) In accordance with Shank (2002), as a result of adopting a method for a study, a researcher increases a degree of immersion and experiential

involvement into research and aims at composing a comprehensive picture of the events, processes or situations that are being investigated. That is why, usually, the researchers who carry out a qualitative study tend to prefer to interpret a phenomenon and get a chance to observe it from diverse angles, rather than using testing an existing hypothesis. (11–12.)

When it comes to quantitative method, Creswell (2003) defines it as a research method that involves numerical data collection with an intent of exposing it to statistical manipulations, analyzing the data and present the outcomes, attaching the measurable, numerical results in order to justify the conclusions that were made throughout the study. The main techniques that are associated with a quantitative method usually include a random selection of respondents to ensure an unbiased data collection, which often takes place in a form of a questionnaire or a survey. It is believed that unlike the conception of a qualitative method, a researcher is not fully immersed in quantitative research and considered to be external to a study. Naturally, the quantitative method is mostly used when explaining a correlation between phenomena and either prove or refute a statement called "hypothesis". (153–154.)

Since the following research is aimed at answering a research question that employs examining a causation relationship between variables, the author has decided to adopt the quantitative method for executing the study.

4.3   Research Design and Methodological Choices

The notion of research design stands for a structured framework of techniques and methods of a research project that allows to organize the research process in a logical and consistent manner as well as to ensure that every step of a study can be efficiently handled (Schwartz-Shea & Yanow 2012, 16).

In consonance with Odom, Brantlinger, Gersten, Horner, Thompson, and Harris (2005, 138), there is a wide range of research designs that serves specific purposes

and address different questions. Thus, choosing an appropriate research design is considered to be a crucial step for a researcher, determining the means of obtaining relevant and valid data as well as the quality of the outcomes.

In order to develop a research design for the research implementation, the researcher made a decision to adopt the research "onion" framework that was elaborated and suggested by Saunders et al. (2009, 108). The main motivation for selecting this model was its integrity and the ability to navigate through the process of choosing a research design step by step. As can be seen from Figure 4, each layer is followed by another one eventually leading to the data collection and analysis processes, allowing an investigator to come up with a consistent and comprehensive action plan. One more advantage of the framework is that it assists in building a sequence of actions where each component complements another, thus ensuring that no logical conflict in regards to the methods chosen occurs.
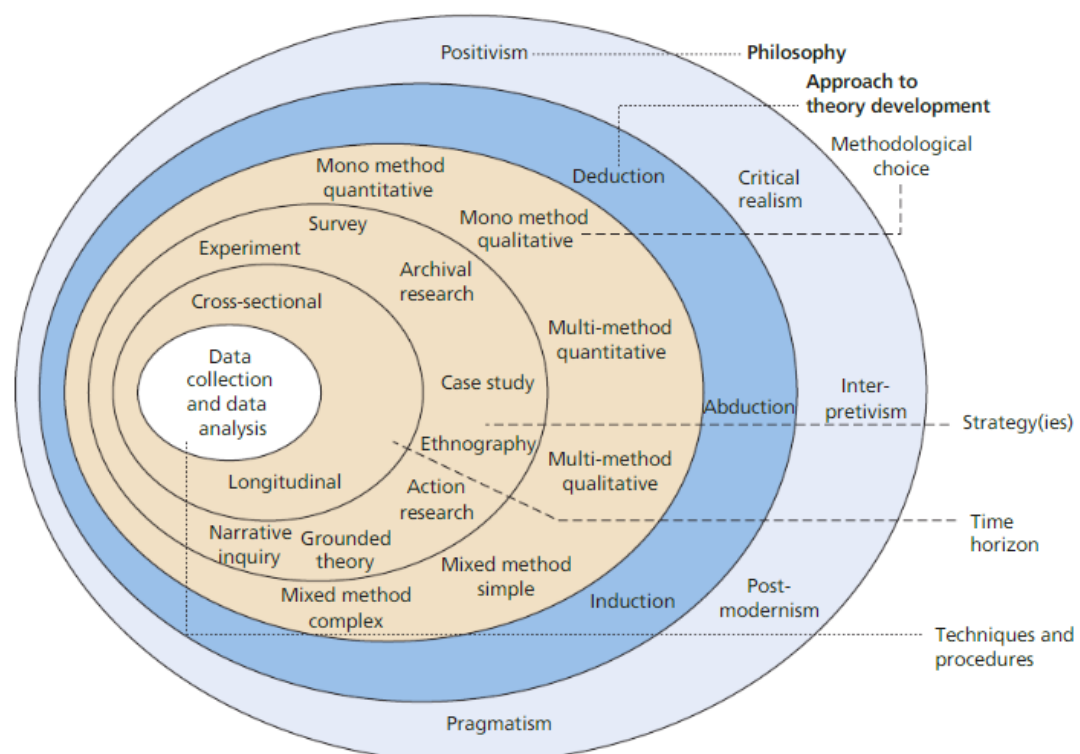

Figure 4 The research "onion" model by Saunders, Lewis, and Thornhill (2009, 124)

The research "onion" consists of six layers. In consonance with Saunders et al. (2009, 108), a peculiar analogy of an onion applied to a research methodology was initially introduced in order to demonstrate that a research process has a lot in common with a structured process of peeling an onion: each layer should be removed in the right order before it becomes possible to reach the core. The "onion" suggests a researcher starting from choosing a research philosophy, followed by an approach, a strategy, a methodological choice, a timeframe, and finally, moving on to the data collection and interpretation processes.

4.3.1   Research Philosophy

The first layer of the research onion is represented by a research philosophy, which refers to an idea or a belief regarding the collection, analysis, and interpretation of data obtained throughout the time when research is conducted (ibid., 109). The idea behind the concept of choosing a research philosophy is that the further development of knowledge and the direction of the study are implemented through a prism of a researcher's understanding and vision of the world. Typically, a research philosophy affects the choice of a strategy and the means of acquiring data. (Simpson 2009, 1331.)

For this research, the philosophy of positivism was selected. The essence of positivism lies in the fact that this is a philosophical stance, based on the presumption that every theory can be tested and justified using scientific methods, such as observations and experiments and verified with the help of mathematical or logical proof (Saunders, Lewis & Thornhill 2009, 135). The philosophy of positivism entails concentrating on discovering measurable and observable facts, which eventually leads to the collection of meaningful and credible data. Generally, by adopting this philosophy, a researcher intends to take an independent and neutral position towards what is to be researched, aiming at maintaining an objective, non-biased attitude. As a positivist, one may choose to test a theory that already exists in order to formulate a hypothesis and either confirm or refute it as an outcome of the research. As a result, in case a hypothesis is refuted, a researcher prepares a background for another scholar who will continue exploring the topic in a new study.

A positivist researcher is most likely to follow a rigidly structured methodology in order to expedite replication and adhere to utilizing quantifiable observations. (ibid., 136–137.)

As it was stated above, one of the aims of this research is to gain an understanding of the correlation between variables. Thus, it was necessary for the author to collect measurable data that can be quantitatively analyzed in the scope of the research. Based on the theoretical background that the author formed in terms of the research design and the aims of this study, it was chosen to act under the positivist philosophy, since it complies with the means of the investigation and allows to reach the objectives that were developed at the beginning of the study.

4.3.2   Research Approach

Deciding upon a research approach happens to be the second layer of the research "onion". It is generally recognized that there are three types of research approach that could be adopted for a study: inductive, deductive, or abductive approaches. (Saunders et al. 2009, 145.)

An inductive approach as a type of reasoning is often used in case there is no or little knowledge available regarding the topic of the present research. In case one adopts an inductive approach, it is required to start the investigation from formulating a research question, followed by an observation and description stages, which finally lead to generating a theory based on the data gathered and interpreted by a researcher. In other words, an inductive approach can be associated with generalizing from specific information to the general. In brief, this approach is oriented towards building a theory. Usually, an inductive approach is associated with a qualitative study. (ibid., 145.)

Speaking of a deductive approach, conversely, it focuses on narrowing the research down from general to specific, beginning from analyzing the theoretical part in a form of academic journals or books or previous researches that are available. Once a theoretical background is formed, a strategy for research should be developed in

order to come up with a hypothesis and test a theory. In simple words, a deductive approach is aimed at theory verification or rebuttal. Commonly, a deductive research approach is connected to a quantitative research method. (ibid., 145.)

An abductive approach implies is utilized to generate testable conclusions by first, identifying and explaining common patterns through collecting data to describe a phenomenon. Secondly, a researcher using an abductive approach either modifies an existing theory or develops a new one, which eventually is to be tested via collecting additional data. This approach employs the incorporation of an existing theory in order to build a new one. (ibid., 145.)

Considering the fact that this research focuses on testing a theory that was developed as a result of studying the relevant academic sources, and the author intends to gather and analyze primarily quantitative data, the deductive orientation towards the research approach was chosen.

4.3.3 Methodological Choice

The third layer of the research "onion" comprises making a methodological choice. This layer allows a researcher to choose between options of carrying out either quantitative and qualitative research. In consonance with the research "onion" model, besides choosing between two approaches (quantitative or qualitative), it is crucial to have an understanding of what method is more suitable to choose while specifically working with this layer of the model: mono-method, multi-method, or mixed-methods. (Melnikovas 2018, 39.)

Firstly, a mono-method can be utilized if research is solely focused on qualitative or quantitative data collection on the basis of the choices that were made in the previous layers of the "onion" (ibid., 39).

Secondly, a multi-method is commonly used when it is necessary to obtain both qualitative and quantitative data in order to pursue research. Nevertheless, one or another type of method becomes a primary one, and the other one used as a mean

of supplementation for the research as well as the analysis of the gathered data is executed from purely one perspective (qualitative or quantitative). (Saunders et al. 2009, 153.)

Thirdly, mixed-methods are used when a researcher aims at obtaining both qualitative and quantitative data planning to utilize both types equally to proceed with the research. In this framework, the two types of methods are seen as complementary elements, contributing to the production of the research outcomes. (ibid., 154.)

To implement this research, it was decided to apply quantitative mono-method. After determining the research philosophy and approach, the author proposes that for getting better insights into the research topic, it is necessary to collect primary data via a self-administered questionnaire with a goal of obtaining quantitative data primarily. Thus, it was concluded that exactly quantitative mono-method could provide the author with all the necessary techniques and resources to make it possible to conduct the study.

4.3.4   Research Strategy

The fourth layer of the research "onion" model is represented by research strategies. There is a wide range of tools and techniques that were designed to serve the purpose of developing a strategic approach towards the process of data collection. It is possible for a researcher to combine two or more strategies or concentrate on one of them, depending on the time that is available for conducting research, accessible resources and the choices that were made during the exploration of the previous layers of the "onion". (Saunders et al. 2009, 155.)

To complete the research, the author decided to select the strategy of survey, which was executed in a form of a questionnaire, in order to obtain primary data. In consonance with Saunders et al. (2009), survey design is mainly associated with the deductive research approach and is widely used by scholars when it is necessary to collect a substantial amount of data and expose it to statistical analysis. The

following strategy allows the researchers to test a hypothesis or answer a research question in a timely and cost-effective manner. (156.) According to Phillips and Stawarski (2008, 1), Alreck and Settle (1995) claimed that a questionnaire is probably one of the most widely spread and popular data collection method because of its versatility: it is capable of documenting both a subjective information regarding the participants and objective, measurable results for a further analysis.

4.3.5   Time Horizons

Time horizons take the fifth layer of the model referring to a timeframe within which a researcher has an intention to complete the study. According to Saunders et al. (2009), the time that an investigator reserves for the research a phenomenon does not depend on which methodology was chosen. There are two options applicable: longitudinal study or cross-sectional study. The selection of either one of them depends on the nature of the research. For example, when the main aim of the research is to explore and explain behavioral patterns over a long period of time, a longitudinal option can be chosen. On the contrary, if a study's goal is to take a snapshot of a situation or environment at a single point of time, the duration of the data collection can be shortened, and the type of the research becomes a cross-sectional. In this situation, data can be collected once within a short period of time and then analyzed. (156–157.)

To pursue the following research, the author chose to continue with the cross-sectional study because the aim is to provide an insight into the impressions and perceptions of a brand identity, concentrating on a short period of time and collecting the respondents' opinions once with no intention of gathering data or updating the results in the future.

4.4   Data Collection

In accordance with Peersman (2014), it is crucial for a researcher to understand that thoroughly chosen and carefully implemented methods for data collection are essential for making precise evaluations and conclusions. Before selecting data

collection methods, it is important to make sure that all methods that are to be chosen complement each other, keeping in balance the strengths and weaknesses of each method. Furthermore, all the data collection methods should be in line with the initial objectives of a study and assist in obtaining the most relevant and truthful information. It is believed that there are two main classifications of data sources: secondary and primary data. (1–2.)

Secondary data refers to a type of data that was previously collected and analyzed by other researchers to achieve their research objectives and which is generally accessible for public use. This type of data source can be advantageous if a researcher experiences time constraints and a lack of resources to pursue a study because it requires only access to the previous data collected by someone else. Secondary data analysis should be a systematic method implemented step by step. (Johnston 2014, 619.)

Kothari (2004, 95–96) defines primary data as a type of data that is collected by a researcher purposefully first-hand due to an absence of a solid research background that could occur as a result of earlier investigations. There are several ways to obtain primary data, including interviews, observations, questionnaires, etc. Primary data is considered to be a reliable source of information for research. (ibid., 96.) However, primary data tends to be a more reliable source in case it is supported by documentary secondary data, which usually appears in research in a form of a literature review (Saunders et al. 2009, 267).

As for this research, the author decided to focus on obtaining primary data, since for reaching the objective of the study, it was vital to get responses and opinions first-hand in order to get the most up-to-date and relevant information, which could be later turned into valid data that would assist in producing critical evaluations. Nevertheless, before the primary data collection began, the author had examined the secondary sources in a form of books, articles from scientific journals, and research papers aiming at building a solid theoretical background, which familiarized the author with the topic and allowed to get valuable insights. Furthermore, diving

into the prior studies gave the author an opportunity to build a theoretical framework on the basis of which the questionnaire was developed.

As it was mentioned above, the author utilized a self-administered questionnaire to collect primary data. The main motivation for choosing this technique for obtaining data was the fact that a questionnaire allows to precisely formulate the questions that can help to reach the goal of the research. Moreover, it is one of the simplest and fastest ways for respondents to share their opinions as well as for a researcher to collect the data. Besides, due to the high volume of data, the questionnaire made it possible to conduct quantitative analysis and identify common patterns, which later assisted in making conclusions and presenting the results. (Lefever, Dal, & Matthiasdottir 2007, 575.)

The questionnaire was created and launched with the help of Google Forms, which granted an easy proliferation of the questionnaire via diverse social media channels and word of mouth. The questionnaire was accessible online over a period of 8 days, which was enough to collect 139 responses. The author strived to reach as many different people as possible, meaning they would ideally have diverse cultural backgrounds, fall into different age ranges, and have various occupations. That is why the author engaged such social media as Instagram, Facebook, and themed websites in order to spread the questionnaire and reach as many potential respondents as possible.

When a researcher's choice of a sample is primarily motivated by reaching the highest level of availability of the respondents, it is defined as a convenience sampling technique (Farrokhi & Mahmoudi-Hamidabad 2012, 784). This sampling technique allows approaching the potential respondents easily, as every population's element is eligible to become a part of the sampling, which was extremely useful for this research due to the necessity of gathering a large volume of data within a restricted timeframe. Moreover, convenience sampling is regarded as an effective technique for observing opinions, habits, and viewpoints. (ibid., 785.)

The questionnaire consisted of the following questions (the extended version can be found in Appendix 1):

- 3 demographic questions specifying the participants' age, gender, and country of residence,

- 10 questions identifying the general color preferences of the respondents,

- 10 questions determining the associations connected with logos, which were colored using the shades of the same colors demonstrated in the previous section + one question per each logo requiring to point out the extent to which the participants liked the logo shown,

- 1 question asking to pick the 3 most liked logos from shown above and a short explanation of the choice.

For designing the questions regarding the respondents' color preferences in daily life, the author used a five-point Likert scale applied to 10 different colors demonstrated in each question, with 1 meaning that a respondent does not like the color at all and 5 being chosen when a color seems to be very appealing. In the next section, the respondents were suggested to see fictional logos of each of 10 colors appearing in the previous section belonging to imaginary brands. This series of questions was aimed at collecting the participants' associations with "brands" created by the logos. Each question had a pre-developed set of adjectives reflecting the associations, out of which it was required to pick as many as possible or to leave own suggestion via the "other" button. The adjectives were: "powerful and dynamic", "luxurious", "glamorous", "boring", "trustworthy", "mysterious", "elegant and sophisticated", "inspirational", "young and fresh", "sad and depressing", "relaxing". There was a complementary question asking to rate the color of each logo that was shown using a five-point Likert scale following the same principle as in the first set of questions.

The adjectives for the questions related to the associations were developed based on the previous researches inspecting the topic of colors in marketing and branding, whose results can be found in the Hypotheses section.

As far as the ethical point of the study is concerned, in order to comply with the intellectual property rights, the author decided to design the logotypes that were used in the questionnaire independently pursuing the intent of avoiding the use of the logos belonging to real brands. Furthermore, in this way, the author managed to reduce the level of bias among respondents and ensure less subjective responses, eliminating an opportunity for the participants to form opinions on colors based on possible experiences that they could have with brands existing in real life.

4.5   Data Analysis

In consonance with Richmond (2006, 29), data analysis refers to a separation of the whole into components aiming at studying these parts and their relations and eventually transforming the findings into respective conclusions that help to answer the research questions or develop new theories. When it comes to the quantitative data, after the data collection stage of the research, it is crucial to analyze and interpret numerical data in a manner that will allow to gain valuable insights and produce a solid ground for making conclusions. (Saunders et al. 2009, 415.) Therefore, the author decided to conduct the data analysis with the help of SPSS software that is capable of converting numerical data into extensive information.

The first step was to extract the data from Google Forms and edit the spreadsheet, so that the answers would become standardized, thus ensuring a more convenient analyzing process and more accurate results. For instance, the author carried out a spelling check in the section where participants were required to enter the country of residence in a form of an open question and corrected the mistakes when necessary. This measure was taken due to the fact that SPSS is capable of grouping the variables only if they are spelled identically.

The second stage of the data analysis process was importing the spreadsheet to SPSS and assigning the values to some of the variables for further numeric data analysis. For example, the variable "age" was attached with 4 different values, where

- "1" stands for the respondents aged between 19 and 25,

- "2" refers to the participants aged between 26 and 35,

- "3" accounts for people aged between 36 and 45, and

- "4" belongs to the age group of 46 and older.

The same procedure was applied to the responses that required rating the options using the Likert scale, namely, the questions about the color preferences in general and an impression of 10 logos. The values are the following:

- "1" means "I do not like this color (logo) at all",

- "2" makes up "I somewhat dislike this color (logo)",

- "3" for those who had a neutral stance towards a color (logo),

- "4" is "I somewhat like this color (logo)", and

- "5" stands for "I like this color (logo)".

Before running any other analysis, the author decided to carry out a descriptive analysis in order to retrieve a broad overview of the data that was collected. All the variables are displayed in Table 1, where "Age" implies the age of participants, "ColorScore" variable represents the answers to the questions regarding the general color preferences of the respondents, and "LogoScore" relates to the questions where it was required to assess suggested logos.

After the descriptive analysis had been completed, the author proceeded with the correlation analysis to figure out what kind of relationship exists between the general color preferences and the score of logos, thus making a step towards testing H1. According to Arkkelin (2014), a correlation analysis should be performed when there is a necessity to find out if there is a relationship between two variables and how strong it is. Moreover, the Pearson correlation analysis, which was done for this research, is used to determine a Pearson correlation coefficient that in turn

demonstrates the degree and direction of correspondence between two variables. Indeed, the correlation coefficient varies from -1.00 to 1.00, with 0 being an indication of no correlation between variables, and an absolute 1 meaning the greatest degree of correlation. The negative value is associated with a perfect linear descending relation, meaning in case one value goes up, another one tends to decrease. On the contrary, the positive value is referred to as perfect ascending linear relation, where the higher score of the first variable implies the higher score of the second one. (95–96.)

Table 1 Descriptive Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Age	139	1	4	1,47	,837
Red Color Score	139	1	5	3,50	1,119
Orange Color Score	139	1	5	3,05	1,206
Yellow Color Score	139	1	5	3,04	1,209
Green Color Score	139	1	5	4,02	1,039
Blue Color Score	139	2	5	4,21	,889
Purple Color Score	139	1	5	3,60	1,344
Pink Color Score	139	1	5	3,44	1,341
Gray Color Score	139	1	5	3,42	1,245
White Color Score	139	1	5	3,83	1,135
Black Color Score	139	1	5	4,00	1,083
Blue Logo Score	139	1	5	3,28	1,084
Yellow Logo Score	139	1	5	2,74	1,066
Pink Logo Score	139	1	5	3,81	1,197
Green Logo Score	139	1	5	3,35	1,226
Red Logo Score	139	1	5	2,91	1,242
Purple Logo Score	139	1	5	3,58	1,215
Black Logo Score	139	1	5	3,95	1,112
Orange Logo Score	139	1	5	2,65	1,178
Gray Logo Score	139	1	5	3,21	1,305
White Logo Score	139	1	5	2,81	1,412
Valid N (listwise)	139				

In addition to the correlation analysis, the crosstabulation technique was applied in order to generate data and organize it in a way that would make it possible to draw conclusions and test H2 and H3. The crosstabulation technique allows an author to

form a table, where one variable determines the rows, and the other one – the columns. In this way, it becomes easier to describe a relationship between two categorical values. In the scope of this research, this technique was utilized to identify the patterns in color preferences that are intrinsic to each age group.

Finally, in order to gain a better understanding of the characteristics that the respondents assigned to logos that were suggested during the process of completion of the questionnaire and be able to test H4, H5, and H6, the author interpreted the results using the bar charts compiled with the help of Google Forms, which allowed to observe and compare the results in a visible manner.

5   Research results

The following chapter was designed to provide the reader with the outcomes of the study and give the answers to RQ1, RQ2, and RQ3 as well as to present the findings gained throughout the data collection stage. In addition, this chapter aims at outlining the results of the hypotheses tests supported by the statistical output generated with the help of SPSS. Moreover, in order to get a better understanding of the scope of the study, a summary of the sample's demographic data is included in this chapter.

5.1   Demographics

Overall, 139 responses were collected over a period of 8 days while the questionnaire was accessible on social media. As can be seen from Figure 5, the participants' age varied from 19 to 46 and above, with people 19–25 years old accounting for the biggest share, followed by respondents aged between 26 and 35 (69% and 20% respectively). People who reported to be aged as 46 and older make up about 6% of the total responses, whereas the age group of 36–45 is represented by a mere 5%.
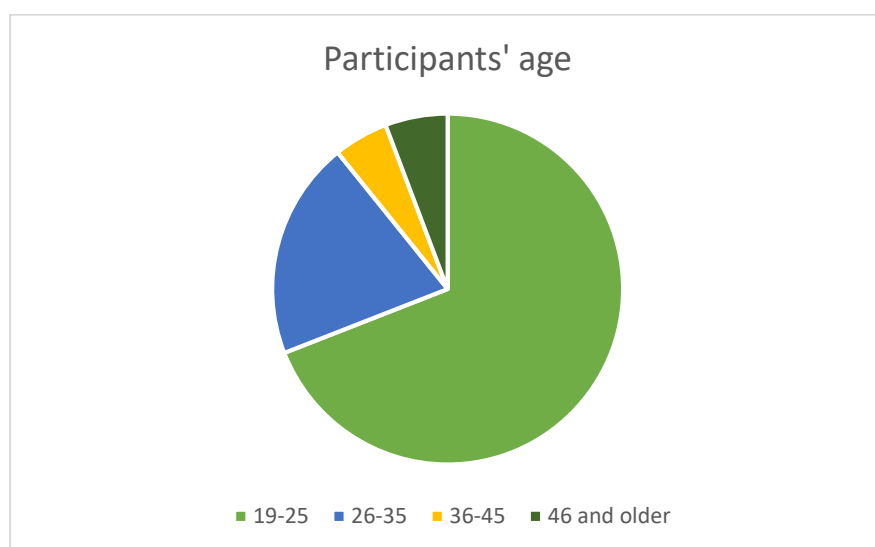
Figure 5 Age distribution

When it comes to the gender of the respondents, according to Figure 6, the biggest share of the responses belongs to women (70%), followed by men (29%), and 1 person who preferred not to disclose their gender (1%).
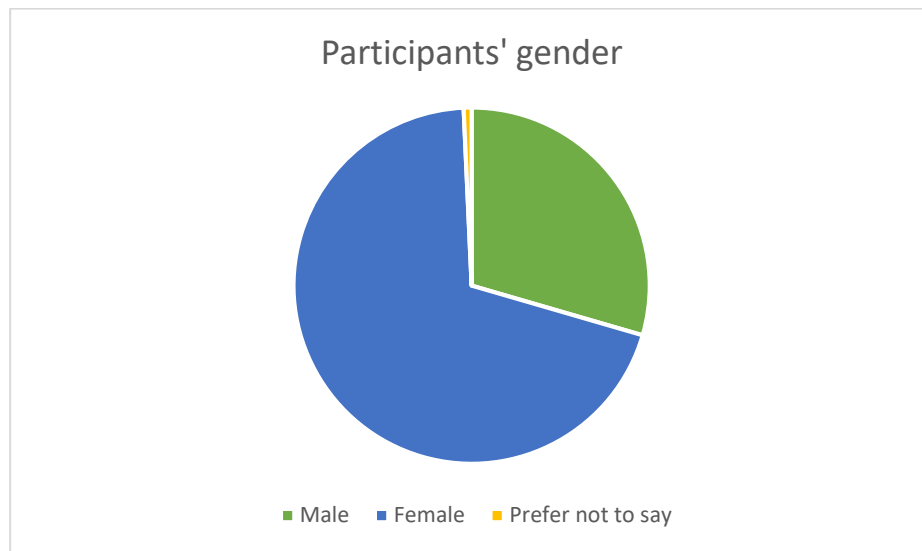
Figure 6 Gender distribution

As far as geographical diversity is concerned, the responses were collected from people living in 39 different countries. The table indicating the respondents' places of residence can be found in Appendix 2.

5.2 Influence of Color Preferences on Logo Perception

In order to get a comprehensive overview of the patterns related to the color preferences, the author suggested the respondents assessing 10 different colors in the first part of the questionnaire. The task implied the usage of the Likert scale consisting of 5 points. This was done to allow the author to access such visual information as the most liked and the least liked color, an average score for each color and the number of people who chose to give one or another score.

The next part of the questionnaire displayed fictional logos created by the author, which were colored using the colors corresponding to the ones in the previous section. Again, one of the tasks for the respondents was to assess the logos using the Likert scale with 5 points. This two-staged procedure was designed for the author to be able to identify whether the choice of color as a favorite has a relationship with the attitude to a logo. In other words, the goal of the author was to find out if, for instance, those participants who gave the color yellow the most points in the first stage, would be more likely to give a higher score to a yellow logo during the second stage.

In this research, the Pearson Correlation for each tested color varied from 0.229 to 0.509 (black color and pink color respectively). It is believed that if a value of the coefficient lies below 0.29, the degree of correlation can be considered as low, whereas if it belongs to the gap between 0.50 and 1.00, the degree of correlation can be seen as a high.

Besides, there was one exception during the analysis associated with the green color. The significance index was determined as 0.095, which is above the standard 0.05, implying that the output of the test is statistically insignificant, therefore the data is not sufficient to make a conclusion regarding green color. The other outputs were assessed as statistically significant. The tables demonstrating the coefficients for each of the 10 colors and logos can be found in Appendix 3.

Thus, in consonance with the results of the correlation test conducted in SPSS, it can be concluded that there is a moderate degree of correlation between the choice of a color and preferred logo, meaning that there is a moderate likelihood that consumers' preferences in color can affect their attitude to a brand's logo, thus having an impact on their brand perception. Taking everything into account, H1 can be confirmed.

5.3   Influence of Age and Gender on Color Preferences

The following section covers two different analyses related to the age and gender of the respondents and their relationship to the color preferences. In order to find out the extent to which these demographic aspects affect the color preferences, the participants were asked to rate 10 colors using the Likert scale. This allowed the author to conduct a descriptive analysis in SPSS, namely, to apply the crosstabulation technique to compile the tables displaying the number of the votes given to the colors according to each of the 4 age groups. The full version of the results can be seen in the tables in Appendix 4.

5.3.1   Age and Colors

To begin with, as it was stated above, H2 aims at determining whether young people prefer bright colors, although as people mature, they tend to prefer dark shades. To test H2, the author decided to use the pie charts demonstrating the answers of each age group related to the color that was asked to rate. For testing this hypothesis, it was needed to compare the rates given to bright and dark colors by the youngest and the oldest age groups who took part in the questionnaire (19–25 years and 46 or above respectively). The following test considers red, orange, and yellow to be "bright" colors, whereas blue, purple, and black colors to be "dark".

Attitude to the color red
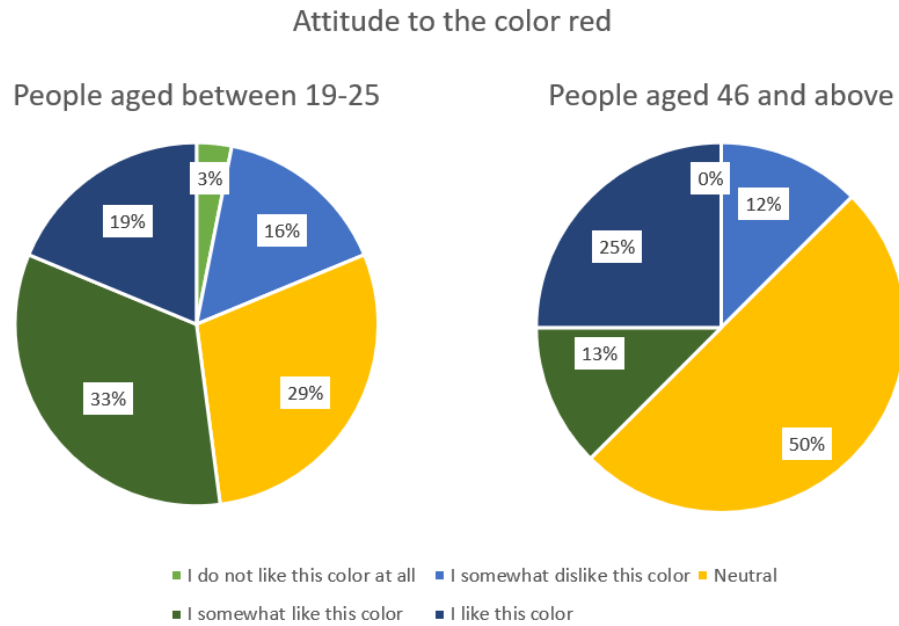
Figure 7 Red color rated by the age groups of 19–25 and 46 and above

According to the pie charts presented in Figure 7, 19% of the respondents aged between 19 and 25 declared that they liked red color assigning it with the maximum score of 5 points followed by 33% who assessed red color as the color they "somewhat like" (4 points out of 5). Speaking about the age group of 46 and above, a quarter of all people surveyed belonging to this age category gave the maximum score to red color, whereas 13% of people gave it 4 out of 5 points using the Likert scale. Thus, it can be summarized that 52% of the respondents aged between 19 and 25 and 38% of the older people fall into the category that can be defined as a "generally positive attitude" towards red color meaning that those people gave 4 or 5 points to the color once they submitted the answers to the questionnaire.

Attitude to the color orange

People aged between 19-25
People aged 46 and above
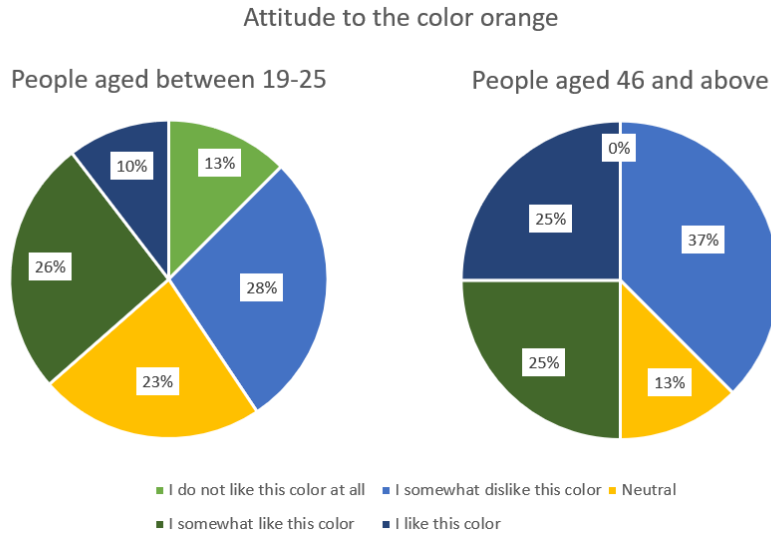
Figure 8 Orange color rated by the age groups of 19–25 and 46 and above

As far as orange color is concerned, as can be seen from Figure 8, 10% of the younger segment and 25% of the older segment reported orange color as the one they like assigning it with a maximum of 5 points. Simultaneously, 26% and 25% of the younger and older age group respectively gave orange color 4 points out of 5 available. To sum up, 36% of people aged between 19 and 25 and 50% of the respondents aged 46 and above account for people who like the orange color.

Attitude to the color yellow

People aged between 19-25
People aged 46 and above
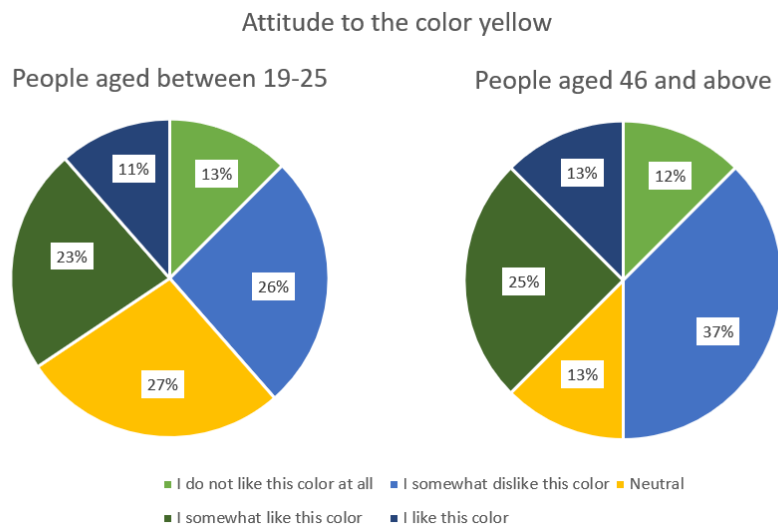
Figure 9 Yellow color rated by the age groups of 19–25 and 46 and above

The last bright color that is to be examined is yellow (Figure 9). In consonance with the pie charts displayed above, 34% of people falling into the age range of 19–25 can be regarded as the ones who like the color yellow (23% and 11% of participants who rated this color as 4 and 5 points correspondingly). Besides, 38% of the respondents aged 46 and older claimed to like the yellow color in general.
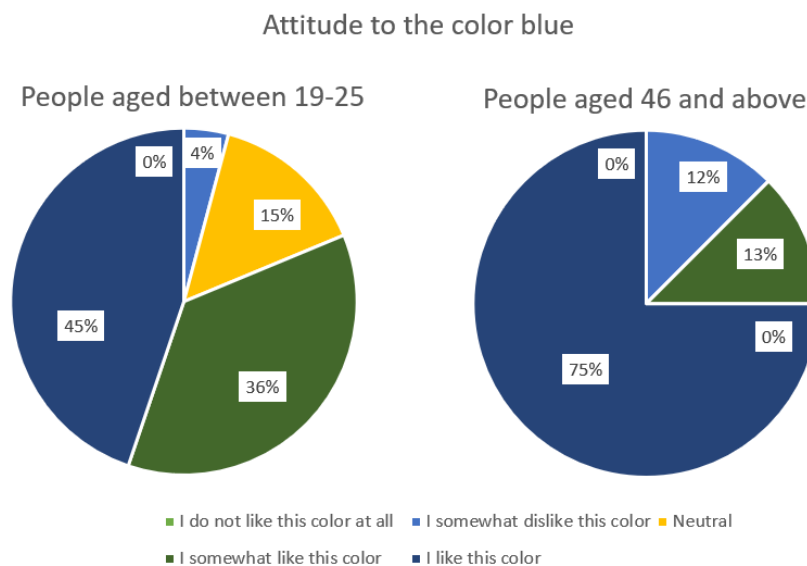
Figure 10 Blue color rated by the age groups of 19–25 and 46 and above

As for the dark colors, overall, the shares of the younger and older people who have a generally positive opinion regarding the color blue are divided almost equally. As can be seen from Figure 10, 81% of people aged between 19 and 25 stated that they liked this color, as well as the older category whose results are a bit higher making up 88% in total, calculating among the people who gave the blue color 4 and 5 points. Notably, both age groups agreed on their opinions in terms of not giving the lowest score of 1 point to the color blue.

Attitude to the color purple

People aged between 19-25

People aged 46 and above
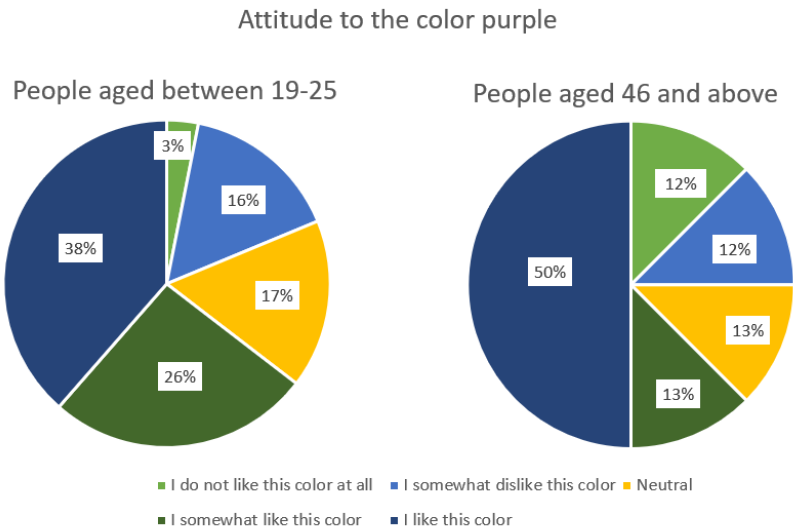
Figure 11 Purple color rated by the age groups of 19–25 and 46 and above

Figure 11 shows how the opinions regarding purple color have been divided among the participants. Cumulatively, 64% of the respondents saw purple as an attractive color. Furthermore, 63% of people aged 46 and above reported this color as a favorite making the shares almost equal.

Attitude to the color black

People aged between 19-25

People aged 46 and above
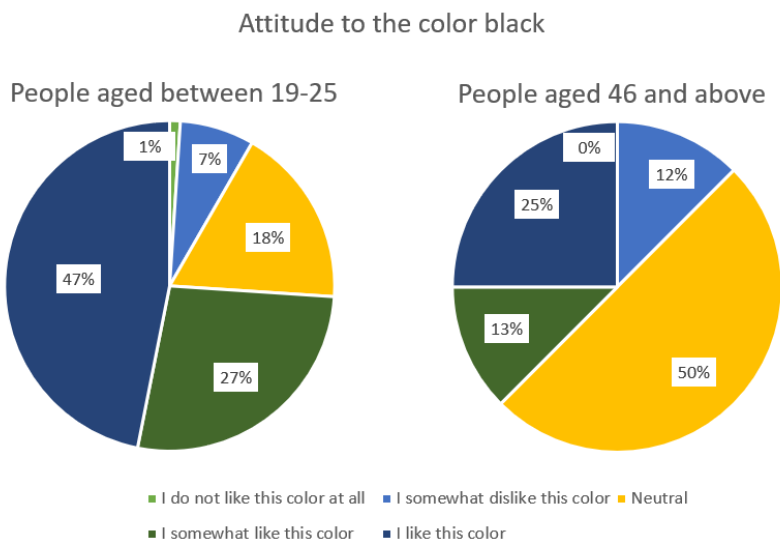
Figure 12 Black color rated by the age groups of 19–25 and 46 and above

Finally, Figure 12 demonstrates that 74% of younger people and only 38% of the respondents aged 46 and above gave 4 or 5 points to black color, with half of the older people taking a neutral position towards this color.

In conclusion, based on the results of the questionnaire, H2 cannot be confirmed since the opinions of each age category on both bright and dark colors were either nearly the same or opposite to the initial hypothesis statement.

5.3.2 Gender and Colors

Essentially, H3 states that due to the cultural and societal influences, in contrast with men, women tend to prefer pink color, thus it can be assumed that generally, women have a more positive attitude to a logo, which predominant color is pink. For making the test possible, it was necessary to apply the crosstabulation technique involving such variables as gender and the score that was given to the pink logo throughout the questionnaire. The extended table with the results provided by SPSS can be found in Appendix 5.
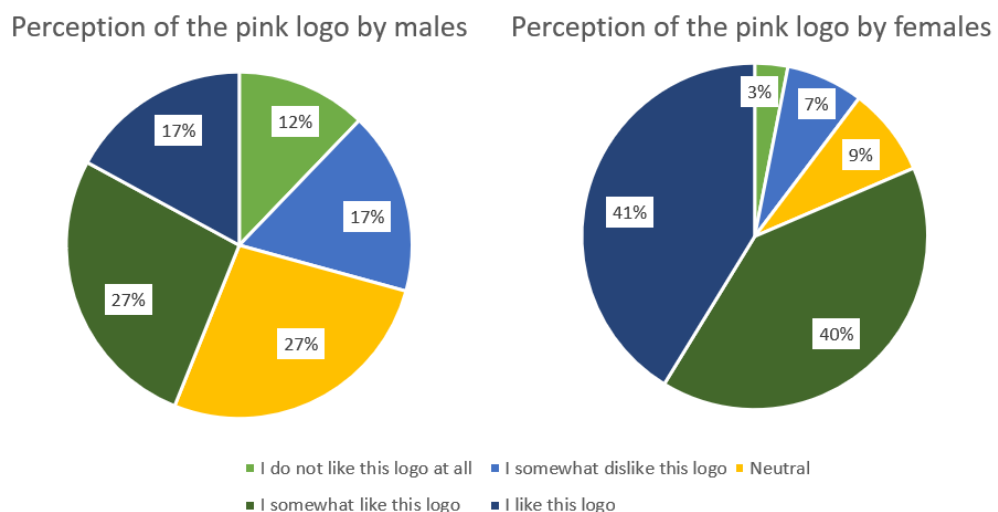
Figure 13 Perception of the pink logo by males and females

In accordance with Figure 13 outlining the differences in perception of the pink logo by males and females, it can be stated that overall, 44% of men assessed the pink logo positively, whereas substantial 81% of women reported the logo as attractive. Moreover, when it comes to the negative responses, the share of men claiming that they did not like the logo at all amounts to 12%. On the contrary, only 3% of women adhere to the same opinion, making it possible to confirm H3.

5.4 Influence of Color Meanings on Logo Perception

The following subchapter outlines the main findings in terms of the color meanings and their relationship to brand perception and brand identity. As it was mentioned earlier, the aim of H4, H5, and H6 was to test whether black and purple colors used in logos are associated with luxury and extravagance by consumers, whereas red-colored logos can be seen as a sign of an energetic and dynamic brand.

In order to make the test possible, the author extracted from the questionnaire the answers related to the logos that were chosen for the analysis, namely, black, purple, and red logos. The respondents who took part in the questionnaire were shown the logos of 10 different colors and asked to choose the adjectives to each logo from a list, which allowed them to pick multiple answers. Alternatively, it was possible to enter own adjective in case a respondent was not confident if any adjective from the list fits a logo. The main task for the participants was to describe the feelings that a logo evokes as accurately as possible.
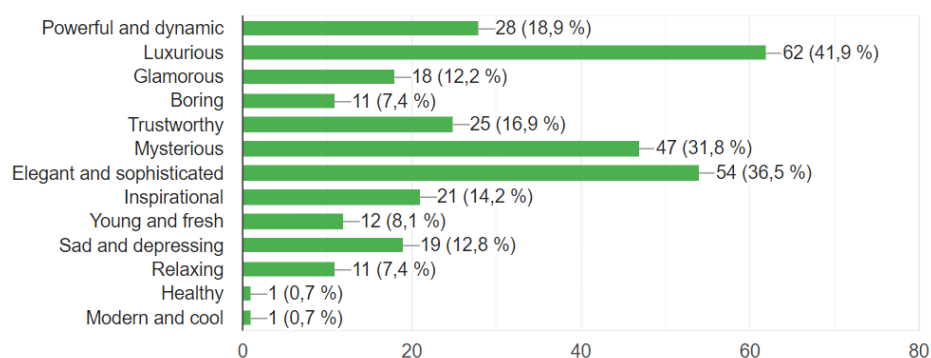
Figure 14 Characteristics given to the black-colored logo

As far as the black-colored logo is concerned, 62 respondents, which accounts for 41.9% of all the answers, considered this logo as a luxurious. The second most popular option chosen was "elegant and sophisticated" (54 people or 36.5% adhered to this opinion). The third most common adjective that was assigned to the logo was "mysterious", picked by 47 (31,8%) respondents. (Figure 14.)

Based on the output discussed above and demonstrated in the bar chart, the author concludes that H4 can be confirmed.
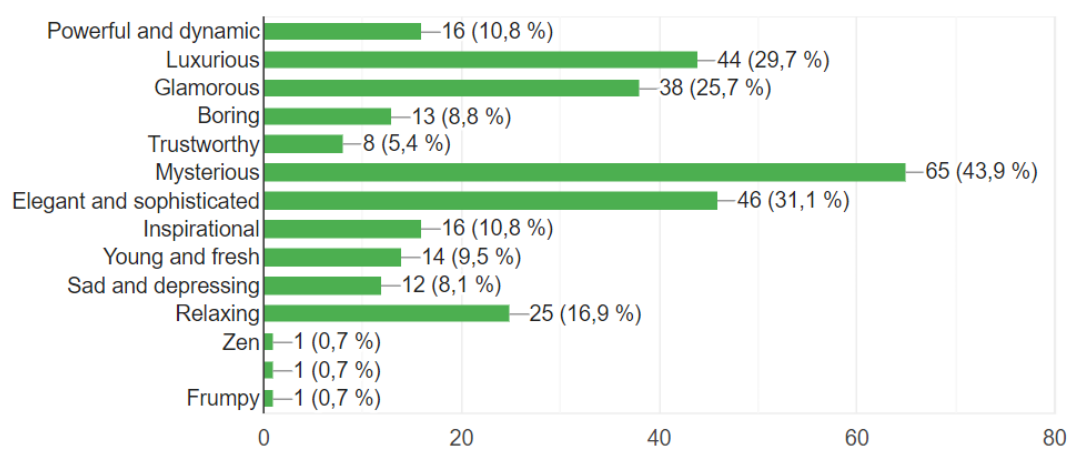
Figure 15 Characteristics given to the purple-colored logo

When it comes to the purple-colored logo, as can be seen from Figure 15, the most popular opinion among the respondents was that the purple logo can be described as "mysterious". This option was chosen by 65 people (43.9%). The votes were almost equally spread between "elegant and sophisticated" and "luxurious", which were chosen by 46 (31.1%) and 44 (29.7%) people respectively.

Taking everything into account, the diagram above allows the author to confirm H5.
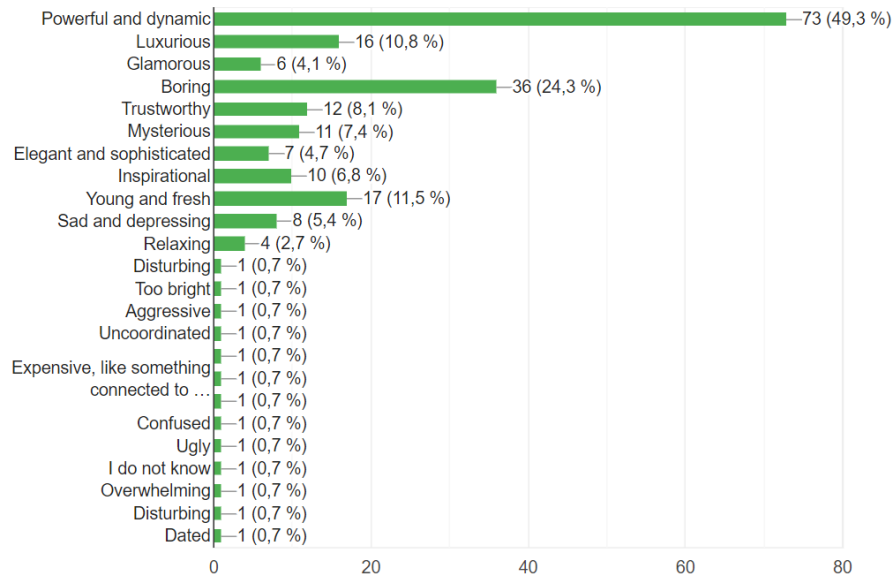
Figure 16 Characteristics given to the red-colored logo

As for the red-colored logo, whose rating is displayed in Figure 16, it can be noticed that the absolute majority of the respondents considered it as powerful and dynamic (73 people and 49.3%). This characteristic was followed by "boring" with 36 respondents (24.3%) sharing the same opinion and "young and fresh", which was chosen by 17 participants (11.5%).

In consonance with the results of the questionnaire, H6 can be confirmed.

6 Conclusions and Practical Implications

To summarize, the study was aimed at discovering what kind of relationship exists between the use of colors in logotypes and consumer brand perception by testing the hypotheses established at the beginning of the thesis. Besides, the objective of the research was to draw practical implications for real companies that are at the stage of planning or already implementing the process of logo creation. In order to collect the data necessary for achieving the objective of the study, the author adopted a quantitative approach and put it into practice with the help of a self-administered questionnaire that allowed to gain valuable consumers' insights from all over the globe. Overall, throughout the study, 3 research questions (RQ) were developed, on the basis of which 6 hypotheses were formulated.

Firstly, the author suggested investigating the nature of the relationship that exists between consumers' general color preferences and their opinion regarding brands' logos (RQ1). Consequently, H1 was developed based on RQ1, which eventually was confirmed. The data analysis revealed that there is a correlation between consumers' favorite colors and their preferences in logotypes, meaning that it is most likely that a consumer will have a more positive attitude towards a logo that contains their favorite color to a large extent.

Secondly, it was decided to get a deeper understanding of how demographic aspects, namely, age and gender can affect consumers' preferences for certain colors and shades (RQ2). As a result, H2 and H3 were formulated based on this research question. Throughout the data analysis, H2 was refuted, implying that there was no significant correlation found between the age of participants and their preferences either in dark or bright color shades. On the contrary, H3 aimed at investigating the influence of gender on the differences in perception of the pink-colored logo was confirmed, supported by the results of the questionnaire. It can be claimed that women generally have a better attitude towards pink color and pink-colored logos.

What is more, several theories regarding the correlation of gender and color preferences that were developed as a result of the research carried out by Khouw (2002), whose outcomes were mentioned in the literature review, have been confirmed in this study. For instance, Khouw reports that the blue color was named as a favorite one by both men and women (2002). In consonance with the present results, around 80% of men and 80% of women named this color as the color they liked. Besides, there were no respondents who gave this color the minimum score. Furthermore, Khouw (2002) declared that the purple color was quite popular among women, whereas men did not mention this color at all when they were asked to list their favorite colors. The following study proves that 68% of women and only 34% of men rated this color as 4 or 5 points, meaning that the purple color is more common to be perceived positively by female consumers. (Appendix 6.)

Apart from that, the conclusions of another author, Birren (1973), who discussed the symbolic meanings of colors in his research paper, have been reflected during this study. For instance, indeed, those respondents who listed the blue logo as the one the liked remarked it as a "professional", "elegant", and "smart". At the same time, the participants that picked the red logo claimed it to be "energetic" and even "aggressive".

Thirdly, RQ3 was developed in order to find out what kind of characteristics can be assigned to a brand based on the color of its logo. Finally, H4, H5, and H6 were formed based on RQ3. Eventually, all 3 hypotheses were confirmed implying that the black logo was seen by consumers as a sign of a luxurious and expensive brand, the purple logo was interpreted as evidence of an extravagant and mysterious brand, and the red logo was seen as an indication of a powerful and energetic brand.

Overall, derived from the results of the study, the following practical recommendations can be given. First of all, before creating a logo prototype, it is crucial for a brand to get a thorough understanding of the desired positioning on a market. As it was discovered in this research, a logotype's color is capable of shaping brand perception in the consumers' minds, so it is important to make sure that a logo design is in line with the essence of a brand. For instance, it is recommended to use

bright colors, such as red, orange or yellow if a brand wants to position itself as powerful, energetic, fresh, and young. On the contrary, in case a goal of a brand is to appear as a stable and solid one belonging to a luxurious segment, it is advised to use black, purple, blue or green colors. In addition, as the questionnaire revealed, those brands that used pink color for a logo were identified as "glamorous", whereas the dark green and gray colors in logos were interpreted as a sign of trustworthiness and evoked a willingness to make a purchase, according to the respondents. Besides, following the outcomes of the questionnaire, it can be concluded that a vast use of the pink color in logo design is seen as a more attractive feature by female rather than male consumers. Moreover, it can be wise to try identifying if there is a commonly liked color of a brand's target audience because people tend to prefer those logos that contain their favorite color.

7 Discussion

This chapter aims at discussing such aspects as reliability and validity of this study, outlining the limitations that could affect the final results of the research, and suggesting the ideas for future research in this topic.

7.1.1 Research Reliability and Validity

To begin with, as it was reported by Ihantola and Kihn (2011), the notion of reliability can be described as a degree of which a set of variables used in research is consistent. In other words, in order to test the extent of research reliability, one can recreate the same research procedure under the same circumstances. In case the results are exactly reproduced or insignificantly vary across time, the research can be classified as valid. As can be derived from the information above, a low level of research reliability increases the chances of an error occurrence. (8.) Kerlinger (1964) advocates that in quantitative research, lack of results reliability may cause difficulties at the stage of testing hypotheses and making conclusions. (168.)

In order to avoid the most common mistakes leading to the decrease of the research reliability, which are made at the stage of data collection, the author of this research took several measures. Firstly, the instructions to the questionnaire were written using a simple, clear language and formulated as accurate as possible. Secondly, the instructions for each question were supplemented by a visual element, such as a picture or a series of pictures. For instance, besides the names of the colors, which respondents were asked to rate, there were pictures of these colors included. Thirdly, before the questionnaire was published on the Internet to reach potential respondents, it was pretested by sending it to small sample size with an intention to receive critical feedback and recommendations on how the structure can be improved. Another common threat to the reliability of the results is an improper length of a questionnaire. Speaking of the questionnaire length, the author initially aimed at compiling it in a manner that would provide a clear user interface and would not take much time to complete. Eventually, the questionnaire was developed in a way that there was the minimum amount of open questions (1 question

requiring an own answer), which allows to save time considerably, and the completion time was around 5–7 minutes.

Considering the research validity, in relation to a quantitative study, this term can be characterized as internal or contextual validity, which implies the fact that a researcher is able to draw valid conclusions at the end of a study. In fact, research validity seeks logic in terms of the connection between existing research and already established theories. (Ihantola and Kihn 2011, 5.)

In order to reduce the influence of factors that could affect the validity of the research, the author took the following steps. First, it was decided to gather data anonymously providing an opportunity to answer honestly, which could decrease the level of bias in the long run. Second, the sample size was chosen randomly, ensuring a larger diversity of the participants, thus providing the researcher with a wider range of opinions. Third, when it comes to the sample logos that were demonstrated to the respondents in the questionnaire, the author designed them from scratch in order to ensure a higher objectivity of the responses, since an option of recalling certain experiences in case a real brand's logo was used was eliminated because the logos were fictional and did not represent any existing brand.

7.1.2 Limitations of the Research

Considering the limitations of this research, there were a few of them that appeared throughout the study and could have an influence on the quality of the final results.

The first limitation that is worth mentioning is the sample profile of this study. Essentially, about 70% of the respondents who participated in the questionnaire were represented by young people aged between 19 and 25. The nature of the sample allows to assume that the majority of people falling into this category were students. This fact can be seen as a limitation for the study because it makes the sample rather homogenous in terms of age and occupation diversity.

Furthermore, such an aspect as cultural diversity also could have an impact on the responses. Indeed, people from 39 different countries took part in the research, which can be a controversial aspect. On the one hand, this fact ensured a better diversity of the responses and provided the author with more versatile data. On the other hand, it means that each culture representatives' answers could be affected by stereotypes or common beliefs, which people are accustomed to.

Finally, although the scope of the research was mainly focused on the colors and their effect on logo perception, the logos that were used in the questionnaire also contained symbols, fonts, and shapes, which could also have an impact on the participants' opinions. Even though the author unified the design of the logos by using a limited amount of other elements that could grab attention, utilizing the same type of font for each logo and shaping each logo either in a form of a circle or a square, the respondents paid attention to those small details. It can be seen by their answers that they provided at the end of the questionnaire when they were asked to explain the reason to choose the most favorite logo. It was declared that some people had a tendency to like a certain logo due to the combination of all visual elements and not a color solely.

In addition, the fact that the logos were shown in a non-contextual environment could affect their perception. There is a slight likelihood of the same logos being rated differently in case they were presented in a suitable environment, for example, in the street, on a product packaging, etc.

7.1.3 Ideas for Further Research

Addressing to the limitations of this research that were described in the previous subchapter, the first suggestion would be to analyze the same topic from a different perspective, for instance, by narrowing down the scope of the research and investigate the use of colors in logos and their impact on brand perception within one specific country. As a result, this can allow to identify not only the patterns common for a country but also to determine what certain cultural differences can affect color preferences.

Moreover, the second possible suggestion is to take a different approach to the topic and adopt a qualitative research method, which could be beneficial for getting deeper insights into people's inner motivation for being attracted or rejected to colors, thus turning the scope of the research towards a color psychology-based topic. Instead of a questionnaire, an in-depth interview can be utilized as a mean of collecting data.

As it was highlighted in the Limitations section, the study can also adopt a more contextual nature, which would allow to compare the results with the outcomes of this research and find out if environment and context can become a turning point for consumers in terms of logo impressions and brand perception.

References

Aaker, D. A. & Keller, K. L. 1990. Consumer Evaluations of Brand Extensions. *Journal of Marketing, 54*(1), 27–41.

Aaker, D. A. 1991. *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. New York: The Free Press.

Adom, D., Hussein, E. K., & Agyem, J. A. 2018. Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research. *International Journal of Scientific Research, 7*(1), 438–441.

Albright, T. D. & Schlack, A. 2007. Remembering Visual Motion: Neural Correlates of Associative Plasticity and Motion Recall in Cortical Area MT. *Neuron, 53,* 881–890.

Amsteus, M., Al-Shaaban, S., Wallin, E., & Sjöqvist, S. 2015. Colors in Marketing: A Study of Color Associations and Context (in) Dependence. *International Journal of Business and Social Science, 6*(3), 32–45.

Andersson, R. 2019. Employees as Ambassadors: Embracing New Role Expectations and Coping with Identity-Tensions. Research Paper. Department of Strategic Communication, Lund University, Helsingborg, Sweden. Accessed on 12 August 2019. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/CCIJ-04-2019-0038/full/pdf?title=employees-as-ambassadors-embracing-new-role-expectations-and-coping-with-identity-tensions

Arkkelin, D. 2014. *Using SPSS to Understand Research and Data Analysis.* Psychology Curricular Materials, Valparaiso University. Accessed on 13 October 2019. Retrieved from:
https://pdfs.semanticscholar.org/b1f8/64a3fe3fc23b5d25c52efa9c021d27e1d1d3.pdf

Atilgan, E., Aksoy, S., & Akinci, S. 2005. Determinants of the Brand Equity – a Verification Approach in the Beverage Industry in Turkey. Research Paper. Department of Business Administration, Akdeniz University, Antalya, Turkey. Accessed on 17 August 2019. Retrieved from:
https://www.emerald.com/insight/content/doi/10.1108/02634500510597283/full/pdf?title=determinants-of-the-brand-equity

Beneke, J., Mathews, O., Munthree, T., & Pillay, K. 2015. The Role of Package Color in Influencing Purchase Intent of Bottled Water. *Journal of Research in Marketing and Entrepreneurship, 17*, 165–192.

Bettinger, C., & Tracey, K. 2002. The Shaping of a Symbol. *ABA Bank Marketing, 34*(6), 18–22.

Birren, F. 1973. Color Preference as a Clue to Personality. *Art Psychotherapy, 1,* 13–16.

Birren, F. 2013. *Color Psychology and Color Therapy: A Factual Study of the Influence of Color on Human Life*. Eastford, CT: Martino Fine Books.

Bonnardel, V., Beniwal, S., Dubey, N., Pande., M., & Bimler, D. 2017. Gender Difference in Color Preference Across Cultures: An Archetypal Pattern Modulated by a Female Cultural Stereotype. *Wiley Journal, 43,* 209–223.

Branthwaite, A. 2002. Investigating the Power of Imagery in Marketing Communication. *Qualitative Market Research: An International Journal, 5*(3), 164–171.

Bravo, R., Buil, I., Chernatony, L. D., & Martinez, E. 2016. Managing Brand Identity: Effects on the Employees. *International Journal of Bank Marketing, 35*, 4–7.

Bresciani, S. & Paolo, D. P. 2017. New Brand Logo Design: Customers' Preference for Brand Name and Icon. *Journal of Brand Management, 24*, 375–378.

Budelmann, D., Kim, Y., & Wozniak, C. 2010. *Brand Identity Essentials: 100 Principles for Designing Logos and Building Brands.* Massachusetts: Quarto Publishing Group USA.

Ciceo, A. 2013. Exploring Kapferer's Brand Identity Prism Applicability in Theatre. *International Journal of Advances in Management and Economics, 2*, 18–34.

Creswell, J. 2003. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 2nd ed. Thousand Oaks, CA: Sage Publications.

Farrokhi, F., & Mahmoudi-Hamidabad, A. 2012. Rethinking Convenience Sampling: Defining Quality Criteria. *Theory and Practice in Language Studies, 2*(4), 784–792.

Foroudi, P., Melewar, T. C., & Gupta, S. 2017. Corporate Logo: History, Definition, and Components. *International Studies of Management & Organization, 47,* 176–180.

Fournier, S. 1998. Consumers and Their Brands: Developing Relationship Theory in Consumer Research. *Journal of Consumer Research, 24*(4), 343–373.

Ghodeswar, B.M. 2008. *Building Brand Identity in Competitive Markets: A Conceptual Model.* School of Management, Asian Institute of Technology.

Grant, C. & Osanloo, A. 2014. Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation. *Administrative Issues Journal: Connecting Education, Practice, and Research,* 12–22.

Grossman, R. P. & Wisenblit, J. Z. 1999. What We Know About Consumers' Colours Choices. *Journal of Marketing Practice: Applied Marketing Science, 5*(3), 78–86.

Hammond, M. 2015. Branding 101. *Mortgage Banking, 75*(11), 64–65.

Hansen, F. & Christensen, L.B. 2003. *Branding and Advertising*. Denmark: Copenhagen Business School Press.

Harfmann, B. 2019. Bringing the Personality of Packages to Life. *Beverage Industry, 110,* 36–38.

Helbling, M. 2018. Consumer Brand Perception Through Social Media. Research Paper. Åbo Academy, Turku, Finland. Accessed on 3 September 2019. Retrieved from: https://www.doria.fi/bitstream/handle/10024/161626/helbling_marc.pdf?sequence =5

Heule, V.J. 1995. Color Basics. *Paint & Coatings Industry, 11,* 30–41.

Hunjet, A. & Vuk, S. 2017. The Psychological Impact of Colors in Marketing. *International Journal Vallis Aurea, 3*(2), 43–54.

Ihantola, E. M. & Kihn, L. A. 2011. Threats to Validity and Reliability in Mixed Methods Accounting Research. *Qualitative Research in Accounting and Management, 8*(1), 39–58.

Jacobs, L., Keown, C., & Worthley, R. 1991. Cross-Cultural Colour Comparisons: Global Marketers Beware. *International Marketing Review, 8*(3), 21–30.

Jansson-Boyd, C. V. 2010. Consumer Psychology. New York: McGraw-Hill Education. Johnston, M. P. 2014. Secondary Data Analysis: A Method of which the Time Has Come. *Qualitative and Quantitative Methods in Libraries (QQML), 3,* 619–626.

Jorge, V. 2015. Perceived Brand Quality as a Way to Superior Customer Perceived Value Crossing by Moderating Effects. Research Paper. Tecnologico de Monterrey, Mexico City, Mexico. Accessed on 17 August 2019. Retrieved from https://search.proquest.com/docview/1674171969/fulltextPDF/9F56577BAAB1473D PQ/1?accountid=11773

Kaiser, P. 1984. Physiological Response to Color. *Color Research and Application, 9*(3), 29–36.

Kapferer, J. N. 2012. *The New Strategic Brand Management. Advanced Insights & Strategic Thinking.* London: Kogan Page Ltd.

Kauppinen-Räisänen, H. & Luomala, H. T. 2010. Exploring Consumers' Product Specific Colour Meanings. *Qualitative Market Research: An International Journal, 13*, 287–308.

Keller, K. L. 1993. Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing, 57*(1), 1–22.

Kerlinger, H. 1964. *Foundations of Behavioral Research.* New York: Holt, Rinehart and Winston, Inc.

Khouw, N. 2002. The Meaning of Color for Gender. Research paper. *Color Matters*. Accessed on 5 October 2019. Retrieved from: https://colormatters.com/

Lane, R. 1991. Does Orange Mean Cheap? *Forbes, 148,* 144–147.

Lassar, W., Mittal, B., & Sharma, A. 1995. Measuring Customer-Based Brand Equity. *Journal of Consumer Marketing, 12*, 11–14.

Lee, W. Y., Gong, S. M., & Leung, C. Y. 2009. Is Color Preference Affected by Age Difference. Research Paper. Department of Industrial Design, Tatung University, Taiwan. Accessed on 10 October 2019. Retrieved from: https://pdfs.semanticscholar.org/8a96/9295782aa9a09f48f6cc4980c90e9caa6d03.pdf?_ga=2.189689323.1500519079.1572700319-1985957076.1572700319

Lefever, S., Dal, M., & Matthiasdottir, A. 2007. Online Data Collection in Academic Research: Advantages and Limitations. *British Journal of Educational Technology, 38*(4), 574–582.

MacIniss, D. J., Shapiro, S., & Mani, G. 1999. Enhancing Brand Awareness Through Brand Symbols. *Advances in Consumer Research, 26*, 601–608.

Melnikovas, A. 2018. Towards an Explicit Research Methodology: Adapting Research Onion Model for Future Studies. *Journal of Future Studies, 23*(2), 29–44.

Meyrick, T., & Taffe, S. 2019. Authenticating Typography in Cultural Festival Brand Marks. Research Paper. Manchester Metropolitan University. Accessed on 7 September 2019. Retrieved from: https://iasdr2019.org/uploads/files/Proceedings/op-f-1238-Mey-T.pdf

Mitchell, A. A. & Olson, J. C. 1981. Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research, 18*(3), 318–332.

Mothersbaugh, D. L. & McCarthy, M. S. 2002. Effects of Typographic Factors in Advertising-Based Persuasion: A General Model and Initial Empirical Tests. *Psychology & Marketing, 19*, 663–691.

Nassaji, H. 2015. Qualitative and Descriptive Research: Data Type Versus Data Analysis. *Language Teaching Research, 19*(2), 129–132.

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. 2005. Research in Special Education: Scientific Methods and Evidence-Based Practices. *Exceptional Children, 71,* 137–148.

Patton, M. Q. 2001. *Qualitative Research and Evaluation and Methods.* 3rd ed. Beverly Hills, CA: Sage Publishing.

Peersman, G. 2014. Methodological Brief: Overview: Data Collection and Analysis Methods in Impact Evaluation. *UNICEF Office of Research*. Accessed on 1 October 2019. Retrieved from: https://www.unicef-irc.org/publications/pdf/brief_10_data_collection_analysis_eng.pdf

Percy, L. & Elliott, R. 2009. *Strategic Advertising Management*. 3rd ed. New York: Oxford University Press Inc.

Peterson, M., Al Shebil, S., & Bishop, M. 2015. Cognitive and Emotional Processing of Brand Logo Changes. *Journal of Product & Brand Management,* 745–757.

Phillips, B. J., McQuarri, E. F., & Griffin, W. G. 2014. How Visual Brand Identity Shapes Consumer Response. *Journal of Psychology & Marketing, 31*, 227–231.

Phillips, B. J., McQuarri, E. F., & Griffin, W. G. 2014. The Face of the Brand: How Art Directors Understand Visual Brand Identity. *Journal of Advertising, 43*(4), 318–319.

Phillips, P. P. & Stawarski, C. 2008. *Data Collection: Planning For and Collecting All Types of Data.* San Francisco, CA: Pfeiffer.

Price, M. 2017. You Can Thank Your Fruit-Hunting Ancestors for Your Color Vision. *Online Journal Science*. Accessed on 1 November 2019. Retrieved from https://www.sciencemag.org/news/2017/02/you-can-thank-your-fruit-hunting-ancestors-your-color-vision

Puzakova, M. & Aggarwal, P. 2018. Brands as Rivals: Consumer Pursuit of Distinctiveness and the Role of Brand Anthropomorphism. *Journal of Consumer Research, 45*, 869–889.

Richmond, B. 2006. *Introduction to Data Analysis* (handbook). Academy for Educational Development, Migrant & Seasonal Head Start Technical Assistance Center.

Robson, C. 2002. *Real World Research. A Resource for Social Scientists and Practitioner-Researchers.* 2nd ed. Oxford: Blackwell Publishing.

Roedder, C. M., Loken, B., Kim, K., & Monga, A. B. 2006. Brand Concept Maps: A Methodology for Identifying Brand Association Networks. *Journal of Marketing Research, 43*, 549.

Rowley, J. 2005. The Four C's of Customer Loyalty. Conceptual Paper. School for Business and Regional Development, University of Wales, Bangor, Gwynedd, UK. Accessed on 14 August 2019. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/02634500510624138/full/pdf?title=the-four-cs-of-customer-loyalty

Salonga, S. *Colours Across Cultures – Colour Psychology Guide*. Accessed on 6 October 2019. Retrieved from https://www.globalme.net/blog/colours-across-cultures

Saunders, M., Lewis, P., & Thornhill, A. 2009. *Research Methods for Business Students.* 5th ed. Harlow: Pearson Education Ltd.

Schmidt, B. H., Simonson, A., & Marcus, J. 1995. Managing Corporate Image and Identity. *Long Range Planning, 28*(5), 82–92.

Schwartz-Shea, P. & Yanow, D. 2012. *Interpretive Research Design: Concepts and Processes.* New York, NY: Routledge.

Shank, G. 2002. *Qualitative Research. A Personal Skills Approach.* New Jersey: Merril Prentice Hall.

Shi, T. 2013. The Use of Color in Marketing: Colors and their Physiological and Psychological Implications. *Berkeley Scientific Journal, 17*(1), 1–6.

Simpson, B. 2009. Pragmatism, Mead and the Practice Turn. *Organization Studies, 30*(12), 1329–1347.

Singh, S. 2006. Impact of Colour on Marketing. *Management Decision, 44*(6), 783–789.

Spilleke, D., & Perrey, J. 2013. *Retail Marketing and Branding: A Definitive Guide to Maximizing ROI*. 2nd. ed. United Kingdom: A John Willey and Sons, Ltd.

Stebbins, R. A. 2011. *What Is Exploration? Exploratory Research in the Social Sciences.* California: Sage Publications, Inc.

Thompson, E., Palacios, A., & Varela, F. J. 1992. Ways of Colouring: Comparative Colour Vision as a Case Study for Cognitive Science. *Behavioral & Brain Science, 15,* 1–74.

Tutssel, G. 2001. But You Can Judge a Brand by Its Color. *Brand Strategy, 158*, 8–17.

Voordt, T., Bakker, I., & Boon, J. 2016. Color Preferences for Four Different Types of Spaces. Research Paper. Delft University of Technology, Delft, The Netherlands. Accessed on 7 October 2019. Retrieved from: https://www.emerald.com/insight/content/doi/10.1108/F-06-2015-0043/full/pdf?title=color-preferences-for-four-different-types-of-spaces

Walliman, N. 2011. *Research Methods. The Basics.* New York, NY: Routledge.

Warde, B. 1955. *The Crystal Goblet: Sixteen Essays on Typography.* Sylvan Press.

Weisgram, E. S., Fulcher, M., & Dinella, L. M. 2014. Pink Gives Girls Permission: Exploring the Roles of Explicit Gender Labels and Gender-Typed Colors on Preschool Children's Toy Preferences. *Journal of Applied Developmental Psychology, 35*, 401–409

Wheeler, A., & Millman, D. 2017. *Designing Brand Identity: An Essential Guide for the Whole Branding Team.* 5th ed. New Jersey: John Wiley & Sons, Inc.

Wiegersma, S. & Elst, V. G. 1988. Blue Phenomenon: Spontaneity or Preference? *Perceptual & Motor Skills, 66*(1), 308–310.

Yin, R. K. 1994. *Case Study Research: Design and Methods.* 2nd ed. Beverly Hills, CA: Sage Publishing.

Appendices

Appendix 1. Questionnaire

How much do you like the color Blue? *

	1	2	3	4	5	
I don't like it at all	○	○	○	○	○	I like this color

How much do you like the color Purple? *

	1	2	3	4	5	
I don't like it at all	○	○	○	○	○	I like this color

How much do you like the color Pink? *

	1	2	3	4	5	
I don't like it at all	○	○	○	○	○	I like this color

How much do you like the color Gray? *

	1	2	3	4	5	
I don't like it at all	○	○	○	○	○	I like this color

This logo seems to be.. *

- [ ] Powerful and dynamic
- [ ] Luxurious
- [ ] Glamorous
- [ ] Boring
- [ ] Trustworthy
- [ ] Mysterious
- [ ] Elegant and sophisticated
- [ ] Inspirational
- [ ] Young and fresh
- [ ] Sad and depressing
- [ ] Relaxing
- [ ] Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

- [ ] Powerful and dynamic
- [ ] Luxurious
- [ ] Glamorous
- [ ] Boring
- [ ] Trustworthy
- [ ] Mysterious
- [ ] Elegant and sophisticated
- [ ] Inspirational
- [ ] Young and fresh
- [ ] Sad and depressing
- [ ] Relaxing
- [ ] Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	◯	◯	◯	◯	◯	It looks great!

This logo seems to be.. *

- ☐ Powerful and dynamic
- ☐ Luxurious
- ☐ Glamorous
- ☐ Boring
- ☐ Trustworthy
- ☐ Mysterious
- ☐ Elegant and sophisticated
- ☐ Inspirational
- ☐ Young and fresh
- ☐ Sad and depressing
- ☐ Relaxing
- ☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

- ☐ Powerful and dynamic
- ☐ Luxurious
- ☐ Glamorous
- ☐ Boring
- ☐ Trustworthy
- ☐ Mysterious
- ☐ Elegant and sophisticated
- ☐ Inspirational
- ☐ Young and fresh
- ☐ Sad and depressing
- ☐ Relaxing
- ☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

- ☐ Powerful and dynamic
- ☐ Luxurious
- ☐ Glamorous
- ☐ Boring
- ☐ Trustworthy
- ☐ Mysterious
- ☐ Elegant and sophisticated
- ☐ Inspirational
- ☐ Young and fresh
- ☐ Sad and depressing
- ☐ Relaxing
- ☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

☐ Powerful and dynamic

☐ Luxurious

☐ Glamorous

☐ Boring

☐ Trustworthy

☐ Mysterious

☐ Elegant and sophisticated

☐ Inspirational

☐ Young and fresh

☐ Sad and depressing

☐ Relaxing

☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

- [ ] Powerful and dynamic
- [ ] Luxurious
- [ ] Glamorous
- [ ] Boring
- [ ] Trustworthy
- [ ] Mysterious
- [ ] Elegant and sophisticated
- [ ] Inspirational
- [ ] Young and fresh
- [ ] Sad and depressing
- [ ] Relaxing
- [ ] Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

☐ Powerful and dynamic

☐ Luxurious

☐ Glamorous

☐ Boring

☐ Trustworthy

☐ Mysterious

☐ Elegant and sophisticated

☐ Inspirational

☐ Young and fresh

☐ Sad and depressing

☐ Relaxing

☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

- [ ] Powerful and dynamic
- [ ] Luxurious
- [ ] Glamorous
- [ ] Boring
- [ ] Trustworthy
- [ ] Mysterious
- [ ] Elegant and sophisticated
- [ ] Inspirational
- [ ] Young and fresh
- [ ] Sad and depressing
- [ ] Relaxing
- [ ] Other…

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

This logo seems to be.. *

White Snow

☐ Powerful and dynamic

☐ Luxurious

☐ Glamorous

☐ Boring

☐ Trustworthy

☐ Mysterious

☐ Elegant and sophisticated

☐ Inspirational

☐ Young and fresh

☐ Sad and depressing

☐ Relaxing

☐ Other...

How much do you like the logo above? *

	1	2	3	4	5	
Do not like it at all	○	○	○	○	○	It looks great!

What are the 3 logos that you like the most? *

- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 6
- [ ] 7
- [ ] 8
- [ ] 9
- [ ] 10

Please, briefly explain why you made this choice. What exactly did you like about the logos you've picked? *

Long-answer text

Appendix 2. Respondents' place of residence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Afghanistan	1	,7	,7	,7
	Australia	1	,7	,7	1,4
	Austria	1	,7	,7	2,2
	Azerbaijan	1	,7	,7	2,9
	Belgium	1	,7	,7	3,6
	Brazil	1	,7	,7	4,3
	Bulgaria	1	,7	,7	5,0
	Canada	1	,7	,7	5,8
	Czech Republic	2	1,4	1,4	7,2
	Ecuador	1	,7	,7	7,9
	Europe	1	,7	,7	8,6
	Finland	6	4,3	4,3	12,9
	France	6	4,3	4,3	17,3
	Germany	5	3,6	3,6	20,9
	Greece	2	1,4	1,4	22,3
	Hungary	2	1,4	1,4	23,7
	India	1	,7	,7	24,5
	Indonesia	1	,7	,7	25,2
	Iraq	1	,7	,7	25,9
	Italy	7	5,0	5,0	30,9
	Kenya	1	,7	,7	31,7
	Mexico	1	,7	,7	32,4
	Pakistan	1	,7	,7	33,1
	Poland	2	1,4	1,4	34,5
	Russia	55	39,6	39,6	74,1
	Singapore	1	,7	,7	74,8
	Slovakia	2	1,4	1,4	76,3
	South Korea	1	,7	,7	77,0
	Spain	5	3,6	3,6	80,6
	Sweden	1	,7	,7	81,3
	Syria	1	,7	,7	82,0
	Taiwan	3	2,2	2,2	84,2
	TheNetherlands	7	5,0	5,0	89,2
	Turkey	1	,7	,7	89,9
	Ukraine	2	1,4	1,4	91,4
	United Kingdom	3	2,2	2,2	93,5

USA	7	5,0	5,0	98,6
Vietnam	1	,7	,7	99,3
Yemen	1	,7	,7	100,0
Total	139	100,0	100,0	

Appendix 3. Pearson's correlation analysis for 10 colors

		RedColorScore	RedLogoScore
RedColorScore	Pearson Correlation	1	,365**
	Sig. (2–tailed)		,000
	N	139	139
RedLogoScore	Pearson Correlation	,365**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		OrangeColorScore	OrangeLogoScore
OrangeColorScore	Pearson Correlation	1	,324**
	Sig. (2–tailed)		,000
	N	139	139
OrangeLogoScore	Pearson Correlation	,324**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		YellowColorScore	YellowLogoScore
YellowColorScore	Pearson Correlation	1	,386**
	Sig. (2–tailed)		,000
	N	139	139
YellowLogoScore	Pearson Correlation	,386**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		GreenColorScore	GreenLogoScore
GreenColorScore	Pearson Correlation	1	,142
	Sig. (2–tailed)		,095
	N	139	139
GreenLogoScore	Pearson Correlation	,142	1
	Sig. (2–tailed)	,095	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		BlueColorScore	BlueLogoScore
BlueColorScore	Pearson Correlation	1	,270**
	Sig. (2–tailed)		,001
	N	139	139
BlueLogoScore	Pearson Correlation	,270**	1
	Sig. (2–tailed)	,001	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		PurpleColorScore	PurpleLogoScore
PurpleColorScore	Pearson Correlation	1	,415**
	Sig. (2–tailed)		,000
	N	139	139
PurpleLogoScore	Pearson Correlation	,415**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		PinkColorScore	PinkLogoScore
PinkColorScore	Pearson Correlation	1	,509**
	Sig. (2–tailed)		,000
	N	139	139
PinkLogoScore	Pearson Correlation	,509**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		GrayColorScore	GrayLogoScore
GrayColorScore	Pearson Correlation	1	,387**
	Sig. (2–tailed)		,000
	N	139	139
GrayLogoScore	Pearson Correlation	,387**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		BlackColorScore	BlackLogoScore
BlackColorScore	Pearson Correlation	1	,229**
	Sig. (2–tailed)		,007
	N	139	139
BlackLogoScore	Pearson Correlation	,229**	1
	Sig. (2–tailed)	,007	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

		WhiteColorScore	WhiteLogoScore
WhiteColorScore	Pearson Correlation	1	,423**
	Sig. (2–tailed)		,000
	N	139	139
WhiteLogoScore	Pearson Correlation	,423**	1
	Sig. (2–tailed)	,000	
	N	139	139

**. Correlation is significant at the 0.01 level (2–tailed).

Appendix 4. Influence of age on color preferences

Age * RedColorScore Crosstabulation

Count

		RedColorScore					Total
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	
Age	19-25	3	15	28	32	18	96
	26-35	1	6	5	7	9	28
	36-45	1	1	3	0	2	7
	46 or older	0	1	4	1	2	8
Total		5	23	40	40	31	139

Age * OrangeColorScore Crosstabulation

Count

		OrangeColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Age	19-25	12	27	22	25	10	96
	26-35	2	4	11	6	5	28
	36-45	1	0	3	2	1	7
	46 or older	0	3	1	2	2	8
Total		15	34	37	35	18	139

Age * YellowColorScore Crosstabulation

Count

		YellowColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Age	19-25	12	25	26	22	11	96
	26-35	1	5	10	5	7	28
	36-45	1	1	2	3	0	7
	46 or older	1	3	1	2	1	8
Total		15	34	39	32	19	139

Age * BlueColorScore Crosstabulation

Count

		BlueColorScore				
		I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Age	19-25	4	14	35	43	96
	26-35	3	3	9	13	28
	36-45	0	2	3	2	7
	46 or older	1	0	1	6	8
Total		8	19	48	64	139

Age * PurpleColorScore Crosstabulation

Count

		PurpleColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Age	19-25	3	15	16	25	37	96
	26-35	7	7	5	2	7	28
	36-45	0	2	1	2	2	7
	46 or older	1	1	1	1	4	8
Total		11	25	23	30	50	139

Age * BlackColorScore Crosstabulation

Count

		BlackColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Age	19-25	1	7	17	26	45	96
	26-35	2	3	4	8	11	28
	36-45	0	1	2	2	2	7
	46 or older	0	1	4	1	2	8
Total		3	12	27	37	60	139

Appendix 5. Males and females' attitude towards pink color and logo

Gender * PinkColorScore Crosstabulation

Count

		PinkColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Gender	Male	5	19	6	7	4	41
	Female	7	6	26	19	39	97
	Prefer not to say	1	0	0	0	0	1
Total		13	25	32	26	43	139

Gender * PinkLogoScore Crosstabulation

Count

		PinkLogoScore					
		I do not like this logo at all	I somewhat dislike this logo	Neutral	I somewhat like this logo	I like this logo	Total
Gender	Male	5	7	11	11	7	41
	Female	3	7	8	39	40	97
	Prefer not to say	1	0	0	0	0	1
Total		9	14	19	50	47	139

Appendix 6. Males and females' rating of the blue and purple colors

Gender * BlueColorScore Crosstabulation

Count

		BlueColorScore				
		I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Gender	Male	2	6	13	20	41
	Female	6	13	35	43	97
	Prefer not to say	0	0	0	1	1
Total		8	19	48	64	139

Gender * PurpleColorScore Crosstabulation

Count

		PurpleColorScore					
		I do not like this color at all	I somewhat dislike this color	Neutral	I somewhat like this color	I like this color	Total
Gender	Male	4	14	9	6	8	41
	Female	7	10	14	24	42	97
	Prefer not to say	0	1	0	0	0	1
Total		11	25	23	30	50	139