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Warm or Cool? The Impact of Logo Colour Temperature on Brand Perception in Finance and Food Sectors

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Abstract

The aim of this study was to determine how the colour temperature of logos influences how consumers perceive a brand, with a focus on the food and financial industries. The experiment involved a “colour swap”, whereby the logos of well-known brands were altered by using colours that were atypical for the industry (e.g. warm colours for financial brands, cool colours for food brands). Participants then evaluated the logos in terms of security values, hedonic values and industry recognition of the brand sector (food or finance). The study partially showed a relationship between colour temperature and customers' perception. Warm colours, even for companies in the financial industry, increase the perceived friendliness and openness of the brand. On the other hand, cool tones added professionalism and credibility to food brands. In contrast, the study did not show an effect of colour temperature on the attribution of a brand to a specific market bracket. The study showed that colour temperature is important for image strategy and can be a useful visual communication tool. In order to investigate the phenomenon in more detail and to determine the influence of other factors that may have influenced the results, it is suggested that additional research be conducted in different cultural and industry settings. This is necessary due to the limited experimental context and the lack of reference to real life decisions.

Keywords: colour temperature, perceptions, logo, food industry, finance industry, hedonic values, security values, warm colours, cool colours

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1. Introduction

When we ask ourselves what are the most efficient methods of sending a message and facilitating the communication between the sender and the receiver, the most prevalent responses that arise are the conventional ones: verbal and written (Prabavathi & Nagasubramani, 2018). In this era of rapid technological development, there are many different ways of conveying such information in an attractive way that draws attention and is remembered for a long time (Kizilcec et al., 2014). In marketing communication is a key and consists of the sender, in this context a company, sending its message to the recipient, who is the customer (Albrecht et al., 2023). Brands have already mastered several communication techniques, including video, audio, and subtle advertising (Ezaka & Emechebe, 2018).

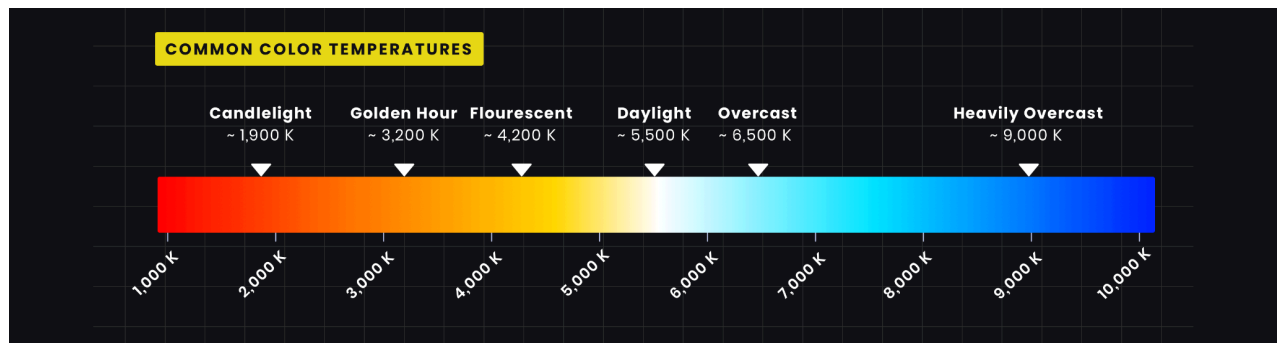
Due to the overwhelming number of new and attractive methods used in marketing, the importance of the brand logo is underestimated and downplayed, as is its fundamental importance for the customer's first contact with the company and subsequent frequent exposure and maintenance of the relationship (Park et al., 2014). Logos are a crucial component of a company's identification and business card due to its visibility and function in facilitating early consumer engagement (Girard et al., 2013). For this reason, companies invest a great deal of resources and effort in creating a logo that conveys the company's values and ideals, a strategically considered emotional charge, and, at the same time, is recognisable and effective in spreading the company's name in the marketplace (Girard et al., 2013). To delve further into the subject of logos, we need to answer another question: which element of a logo is the most visible

and most prominent? And the answer to this question is the colour scheme (Liao & Chen, 2014). Colours are a fundamental and integral part of the image, regardless of the context (Tanaka et al., 2001). Sight, as one of the basic senses, is used to gather information and the recognition of different colours is a skill we acquire at birth (Skelton et al., 2022). It could be said, therefore, that the perception of colours and the gathering of information from the environment is one of the basic and most diverse human skills. The consequence of this is the rapid formation of first impressions and evaluations of the company in question, and the associations that follow in rapid succession. All of this is dependent on the theory of colour psychology and how it affects the human psyche (Buether, 2014).

The existing literature provides a comprehensive account of the various components related to the topic, such as the meaning and function of brand logos in marketing as well as the effect of colours on psychology and their use in marketing. Singh (2006), in his study, covers how colours influence consumer judgement and purchasing decisions, emphasising that up to 90% of a product's rapid evaluation can depend on colour. At the same time, as well as enticing consumers with colours, brands are also trying to differentiate themselves from the competition (Labrecque & Milne, 2013). According to Park et al. (2014), having a well-designed logo strongly influences the relationship between the organisation and the consumer. They believe that logos that adequately reflect the values of the company influence the strength of the connection with the customer and therefore have a positive impact on the company's performance. In addition, having a logo that stands out from the competition, is unique and well-designed can increase brand recognition and its attractiveness in the eyes of customers (van der Lans et al., 2008). It is therefore a key aspect in competing in a competitive market.

While investigating these subjects, it was discovered that the literature on the phenomena of variations in colour schemes in the logos of the food and financial industries was severely lacking. Related topics, such as the psychology of colours in general, their importance in marketing, or logo design are described well in the literature. However, no articles have been found that examine the differences between colour temperature and the use of colour in two separate market sectors of food and finance, despite those being vividly different. Colour temperature refers to the classification of hues into warm and cool categories, commonly used in design and psychology to convey different psychological effects (Kurt & Osueke, 2014; Holmes & Regier, 2016).

Figure 1
Colour temperature on the Kelvin scale



In the food sector, customers' expectations focus mainly on hedonistic values (Pérez-Villarreal et al., 2020). Factors such as appearance and taste have the greatest influence on their attitudes towards a company. These are the attributes often linked to warm hues (Songur Bozdog & Akkurt, 2025). On the contrary, customers in the financial sector focus primarily on security values. To ensure customer loyalty and satisfaction, financial firms must focus on values

such as protection, privacy, and trust (Apau & Lallie, 2022). According to these principles, cool colours like blue work especially well because they are linked to professionalism and solitude (Ceravolo et al., 2021). These differences in the expectations of companies operating in these sectors make them very different from each other. Conducting such research would significantly raise awareness of the impact of colours in brand logos on customer perception and early communication between service providers and customers. Moreover, it would improve creative processes and increase understanding within the logo design community in the food and financial industries. In addition, the study of this phenomenon will also serve to broaden knowledge of colour theory and its effects on the human psyche. Therefore, the aim of this paper will be to answer the research question:

“How does colour temperature (warm and cool) in company logos influence consumer perception in the financial and food industries?”.

To address the research question, a pre-structured study and a comprehensive review of relevant academic literature will be conducted. In the next section, the theoretical framework will be introduced to explain all the key aspects related to the question, such as customer perception, colour psychology, branding and visual identity, as well as customer-specific requirements. This is followed by a section on the methods of this study, together with the results and a discussion.

2. Theoretical framework

In this section, the key concepts for understanding the phenomenon in question will be explained and relevant theories will be presented to help understand concepts such as colour theory, branding and corporate identity, expectations and brand-specific colour conventions and brand perception.

2.1 Conceptual Foundations and Context

During the creative process of designing a company logo, one of the most important choices that the person or team responsible for the design has to make is which colour palette to use as the theme for the logo (Song et al., 2022). This is not, however, a purely aesthetic choice, but a strategically considered and at the same time purely pragmatic decision. Existing research supporting this claim shows that different hues and shades have different psychological effects on people (Buether, 2014). The basic distinction between colour dimensions, that occurs due to the differences in the wavelength, is cool and warm (Vohra & Thomas, 2024). Red, orange, and yellow are examples of the warm colour group (Alnasuan, 2016). For instance, in European culture and in the food context they are associated with diligence and increased attention, they are energising and stimulate the appetite (Elliot, 2015). They are often used by food and retail companies (Shagyrov & Shamoi, 2024). On the contrary cool colours like blue, green, violet are mainly associated with a sense of stability, calmness, trust and professionalism in general (Elliot & Maier, 2014). They are therefore colours which are often seen in environments associated with finance, technology and health. Taking into account the previously mentioned colour dimensions and the circumstances in which they appear in logos from different market fields, this work will focus on two fields: the financial industry and the food industry. There are fundamental

differences between them and they offer quite different services and experiences to customers. Additionally, consumers in the food and financial sectors have rather different expectations of the two distinct businesses, respectively (Johns & Pine, 2002). In the food industry, companies place great emphasis on pleasing the customer emotionally, responding to their basic needs and impulsive behaviour by offering easy pleasure (Johns & Pine, 2002). In order to activate and appeal to these psychological responses, colour is one of the key factors in attracting customers to the services offered by a company and aims to increase its attractiveness (Song et al., 2022). The financial sector focuses on more serious matters, which is money in general, so naturally the values to which they will want to refer are very different from the food sector. The colours in their logos will have a different purpose since they will centre their message around qualities like professionalism, stability, and trust (Hynes, 2009).

2.2 Colour Psychology

Sight is one of the basic human senses, with colours playing a key role (Skelton et al., 2022). They are a sub-satellite source of information which is subliminally interpreted by the human consciousness (Railo et al., 2021). Over time, their role has evolved and changed according to trends, and current needs of society (DeLong, 2014). Today, colours have taken on a largely aesthetic function, being present in fashion, the automotive industry, art and many other fields (Buether, 2014). However, there are many informative uses, e.g. for traffic lights, object markings, etc. According to Dzulkifliv & Mustafar (2013) colours are also used in marketing, and this is done primarily for two purposes. The first is, of course, the aesthetic aspect and the desire to create an attractive image in order to attract the customer's interest, catch his eye and draw his attention to the brand. The second objective, which is just as important as the first, is to

initiate a message. This is a supraliminal process that occurs subconsciously in such a person. Seeing a particular colour in a brand logo unconsciously attributes meaning to it (Singh & Chowdhury, 2023). According to Singh and Chowdhury (2023), who researched the perception of specific colours and the attribution of certain characteristics, meanings and values to them, this is weighed against the culture in which one is raised. In their case, the discussion was about people from the Indian culture, but it is a universal statement because it is about colours, present all over the world. With this knowledge, brands can utilise colour strategically to indirectly communicate their personality to consumers (Girard et al., 2013). Colour perception is a phenomenon and a skill that develops as we grow up and is strongly linked to the culture in which we live (Kim & Sung, 2013). This is due to previously acquired experiences and sentiments, which are passed on in society and are generally accepted. Depending on the colour and the culture in which the individual has grown up, certain emotions and reactions can be triggered by the colour.

Generally speaking colours fall into two categories based on colour temperature - cool and warm hues (Holmes & Regier, 2016). Colour temperature is a colloquial term, but also used in fields such as design and psychology to describe a type of colour in relation to temperature (Kurt & Osueke, 2014). This concept refers to the broader psychological phenomenon of warm colours as stimulating energy for action and cool colours as calming and stabilising (Shahidi et al., 2021). Warm colours, such as red, orange and yellow, are used in marketing to convey strong emotions. The colour red evokes rapturous emotions such as passion, excitement and affection (Vohra & Thomas, 2024). Yellow is responsible for feelings of warmth, optimism, happiness and hope (Jonauskaite & Mohr, 2025). Orange is mainly associated with enthusiasm, stress relief,

pleasure, and courage (Kurt & Osueke, 2014). It can be observed that all these emotions and associations are very positive and refer to emotions which are positive and encourage violent action and reckless decisions. Cool colours, on the other hand, evoke emotions that have their origin in completely different values and, in a way, are the polar opposite of those evoked by warm colours. Cool colours include blue and green (Hammond et al., 2024). Blue is associated with ease, trust, hope, security and peace (Kamaruzaman & Jamaludin, 2023). Green represents feelings such as security, balance, harmony, calmness. Finally, white is responsible for truth, order, simplicity and trust (Vohra & Thomas, 2024). These are emotions which are associated with rather calm reasoning, cool calculation and which appear during logical reasoning. Therefore, it can be said that they are an important factor when talking about financial matters.

2.3 Branding and Visual Identity

There has been a saying for countless years that first impressions are the most important. In a way this is right, because our first contact with something creates a first sentiment, causes an emotional reaction and is often firmly embedded in our memory (Digirolamo & Hintzman, 1997). Therefore, in marketing, it is crucial for a brand to provide a favorable first impression that will leave a positive sentiment in the customer's mind (Alam et al., 2023). If the brand image is well appreciated on first contact with an individual, there is a greater likelihood of that customer returning the next time and using the services offered (Tahir et al., 2024). One of the basics that companies should have mastered, and one of the most important marketing strategies, is to have a logo that correctly and attractively represents brand identity in terms of their values and beliefs (Shao & Chen Sheung Ngai, 2023). A logo should not just be aesthetically pleasing -

its key function is to communicate brand values in a quick and intuitive way (van Riel & van den Ban, 2001). While there is no universally accepted definition of a 'good' logo, it can be argued that effective logos are those that successfully fulfill their intended purpose by significantly shaping customer perceptions during the brief exposure to the logo. The key word here is the perception of the brand. Customers' perception of a company is a process during which people organise and interpret the information they have acquired about a company through stimuli by being exposed to the company's logo (Nnamdi, 2012). According to Ali & Seshadri (1993), customers' perception of a company's quality and value is a fundamental factor on which a company's subsequent strategy in competing with its competitors depends. Their model indicates that when selecting the level and quality of products or services, companies must consider how they are perceived relative to competitors, with colour and logo design playing a crucial role in shaping brand image and influencing customer comparison.

At the same time, Ogba and Tan (2009) note that there is a positive relationship between brand image and customer loyalty and the active choice of the brand over others. In their study, they argue that a well-received brand image encourages customers to remain loyal and increases the likelihood that they will use the service or buy the product again. In today's marketplace saturated with competition, standing out through a positive first impression can determine a company's success (Bergeron et al., 2008). Building trust from the first moments of contact with a brand is becoming a key element of marketing strategy. It is these initial seconds that often determine whether a customer chooses to interact further. Aesthetics, communication and visual consistency are just some of the factors that influence brand perception (Wei & Yin, 2024). First impressions are not just about appearance - it is also important what emotions a brand evokes

(Wang, 2024). A properly planned and executed logo design can effectively build loyalty and a long-term relationship between the company and customer along with brand recognition on the market (Abidin et al., 2025).

In numerous instances, a potential customer's first interaction with a brand is through their visual interaction with the company's logo. This is always the most prominent element of the brand, which is also memorable and associated with it, forming an integral part of it in the individual's mind (Girard et al., 2013). This is why brands, using the logo, try to convey as much information and their values as possible, with which to interest the customer (Liang et al., 2024). As one of the most prominent elements of a logo, colour typically plays a central role in fulfilling this communicative function. Of the several methods that are used for this purpose, the modulation of colours plays a major role (Labrecque, 2020). A particular layout and colour scheme is often associated with a unique brand aesthetic. In addition, the relationship between the colours of the brand logo and their influence on the product or service offered by the brand was noted (Gupta & Dingliwal, 2023). They focus on explaining how, for example, warm colours can stimulate emotions such as urgency or excitement. Their naming also emphasises the importance of consistency between the company's values and the colours it uses. Thus, companies are staying mindful of using colours in their logos that will be consistent with the products they offer, which can have a positive impact on brand recognition and consumer choice (Bottomley & Doyle, 2006). There are frequent examples where a brand can be recognised by colours alone, without even seeing the logo - for example Coca-Cola by white and red, or McDonald's by red and yellow (Jin et al., 2019). Thus, unique colour combinations serve brand recognition. Furthermore, through the use and manipulation of appropriate colours, brands also

communicate their values with which they identify (Labrecque, 2020). Through the appropriate use of colours, they can establish a bond of understanding with the customer, creating a sentiment of trust and building loyalty and attachment in the customer. Therefore, logo design should not be casual or treated superficially. It requires a deep understanding of the target group, the brand mission and the emotions it is intended to evoke (Godlewski et al., 2023). Colours can symbolise qualities such as innovation, reliability, luxury or friendliness, influencing the way a company is perceived. A well-chosen colour scheme helps to build a consistent and memorable image. Consequently, the logo becomes not only a graphic sign, but also an emotional point of contact between the brand and the customer.

2.4 Industry - Specific Expectations & Colour Conventions

As mentioned in the previous sections, the colours in the logos are not incidental and have a very important role to play in contacting and establishing a relationship with the customer. Depending on the client's expectations, the services and products offered by the company and the general idea the company has of presenting its identity in the market, specific colours will be used (Gupta & Dingliwal, 2023). Furthermore, Maghraby et al. (2024) note a correlation between colours and customers' expectations of a company that identifies with them. According to them, colours that trigger specific emotions and associations can be used to emphasise the convergence of a company's personality and the expectations of its potential customers. For this reason, the right choice of colour becomes a key element of a branding strategy that fosters a positive and consistent perception of the company by the target group. It is therefore possible to notice a certain pattern and similarity in the logos of companies which belong to the same type of services and products (Kim & Lim, 2019). At the same time, these logos will be very different

when compared with logos of companies in a completely different sector and targeting customers with different needs.

This study's aim is to compare companies and, more specifically, company logos from two different industries - food and financial. Customers have very different expectations of them, which companies in these parts of the market have to meet. Consequently, there are large differences between them. In the case of brands in the food sector, for example, the largest representatives of which are customers, there are very specific expectations, such as good tasting products, attractive premises, low prices and promotions, comfort and a good time (Johns & Pine, 2002). In order to convey the promise of their customers' requirements, companies need to be aware of the importance of colours in the subliminal communication process when using logos. Considering which colours convey which emotions and impress consumers, companies choose these colours during the logo design process (Girard et al., 2013). For this reason, the colour choices of companies involved in the food and beverage sector often tend to use warm colours, such as red, yellow or orange, as these are linked to customer expectations (Muniz et al., 2023). Examples of companies using these colours in the food industry include giants such as McDonald's, Wendy's, Burger King and KFC.

In contrast to this, we have a financial sector whose job it is to meet the requirements of its clients for a much more serious, but just as important, matter as money. When customers entrust their savings to a company or financial institution, they expect a concrete and serious approach (van Esterik-Plasmeijer & van Raaij, 2017). Other expectations include security, transparency, individualisation of offers, fairness, professionalism, and protection (Cruijssen et

al., 2021). There is no doubt that these are the values that financial services companies strive to convey when it comes to communicating with their customers and building their identity. In order to convince customers of the correctness of their choice and to encourage new customers to trust them and use their services, they include cool colours in their logos - colours that are associated with the aforementioned values (Su et al., 2019). These include colours such as various shades of blue, white and green. Examples include PayPal, Fidelity Investments, Mastercard and Revolut. Taking into account observations of the real world, but also existing research as well as colour psychology theories, this leads me to the following hypotheses:

H1: The use of warm colours leads to higher hedonistic values perceptions than use of cool colours.

H2: The use of cool colours leads to higher security values perceptions than use of warm colours..

In summary, the purpose of this study is to test and confirm the existence of a relationship between brand perception and the dominant colour temperature in a logo depending on its affiliation to a financial or food industry. As many studies have confirmed, colours have a strong influence on consumers' perception of a company. Currently, a large proportion of food brands use warm colours in their logos. Companies in the financial sector, on the other hand, use cool colours in their logos. Taking this into account, another thesis can be made:

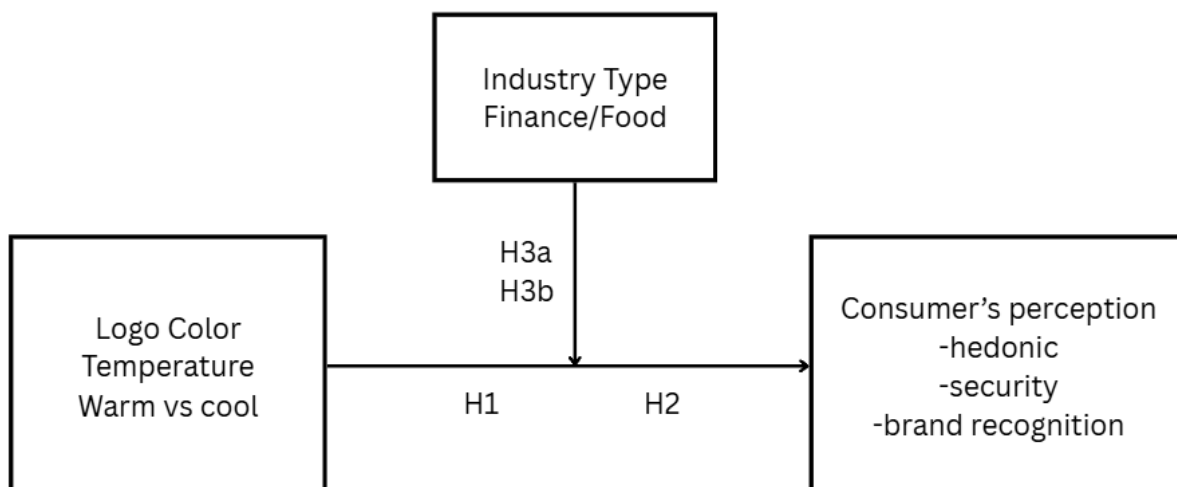
H3a: In the financial industry the use of cool colours leads to more people correctly classifying the brand to its category, than the use of warm colours.

H3b: In the food industry the use of warm colours leads to more people correctly classifying the brand to its category, than the use of cool colours.

Figure 2 shows a conceptual model with a visual representation of the relationship between customer perception of the company, which industry it belongs to and the temperature of the colours present in the logo. Perceptions are expected to increase positively for companies in the financial sector that use cool colours in their logos. At the same time, the perception is expected to increase positively for companies in the food industry with warm colours in their logos.

Figure 2

Conceptual visualization model of the relationship between colour temperature in the company logo, type of industry the company belongs to, and consumer's perception



3. Method

3.1 Research design

To answer the paper's main research question ‘How does colour temperature in company logos influence consumer perception in the financial and food industries?’ two research methods were designed and then implemented. It was decided that one of them would be a focus group in the field of qualitative methods in order to validate stimulus materials for the second method which was an experimental research design in the field of quantitative methods.

3.1.1 Focus group

The focus group consisted of six people from the author's environment. During a dialogue and discussion in which the author was an observer, 3 examples each of logos from 2 separate industries have been selected and used in the experimental research design. During the discussion, useful information also emerged for the author on the subsequent manipulation of colours, which will be used in the design of the second experimental research method. The use of focus group was aimed at increasing the reliability and validity of the stimulus material and introducing a diversity of opinions (Nyumba et al., 2018). In addition it will help to eliminate the factor of subjectivity and bias that could have arisen if the author had chosen the logos present in the experimental research design himself (Gundumogula, 2021).

3.1.2 Experimental research design

A quantitative research method in the form of an experimental research design was then used to collect the main data. It was chosen because of its inclination to obtain data that allow us

to test the causal relationship between factors and understand the behaviour, attitudes and sentiments of the sample group (Bowling, 2005). An experimental research design was created to explore how customers perceived the company through the colours in their logo. An experimental research design was created to explore how customers perceived the company through the colours in their logo. The website Canva (<https://www.canva.com/>) was used to modify the original colours of the brand logos. The logos that were previously selected during the focus group were altered and their original colours changed to their opposites - cool to warm and vice versa (Figure 2). In the control group (Group 2) participants were exposed to the logos with their original colour temperature, and the experimental group (Group 1) had logos with reversed colour temperature from their original version.

Figure 2



Then, after viewing each logo, the participant responded by expressing his or her opinion on the statements given. In addition, the participants were randomly divided between two groups

- the control group and the research group. One group evaluated logos of well-known brands, whose colours had been modified and their colour temperature changed to the opposite. The second group evaluated the logos of the same brands in their original form, where no changes were applied. The purpose was to investigate customer's sentiment towards the company, trust, sense of professionalism and expectation of satisfaction in two different conditions. Lastly, the questionnaire included questions to help determine demographics, education, gender and previous experience and level of expertise in logo design and branding of the participant. The questionnaire was only available in English, in an online format on the Qualtrics platform (<https://www.qualtrics.com/>). Data collection took place between the dates 15.05.2025 and 23.05.2025.

3.2 Procedure

Members received access to the questionnaire via a reference link. After opening it, they were equally randomly assigned to two separate versions of the questionnaire - group 1, which was the research group, and group 2, which was the control group. These contained the same questions and the same brand logos, but the colour versions varied. In the control group they were the original, while in the research group the financial companies were presented in warm colours and the food companies in cool colours.

The first element of the questionnaire was to invite people to take the questionnaire and inform them of its content. This was followed by questions to help identify the demographics of the participants by asking their age, gender, and education. A question was also asked about the level of familiarity and knowledge of logo design and branding in general (*How familiar are you with design or branding concepts?*).

The next block began the actual questionnaire part. First the participant was informed what was being asked for in this part of the questionnaire and then it was on to the first logo. The first question appearing before every logo was whether the participant identifies which of the two market sectors mentioned above the brand belongs to (available answers: financial or food). After that participants were asked to respond to the questionnaire and express their opinion on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The aim of this stage was to capture the first intuitive reactions to the modified version of the brand identity.

After answering this part of the questionnaire, the participant was thanked for the participation, informed about the deliberate purpose of the study, encouraged to leave a comment about their experience during the questionnaire, and left with contact information to the researcher.

3.3 Selection of participants

Respondents were brought together using a convenience sample method. A link to the experimental research design was posted on the author's social media accounts and made available to groups on Reddit group (SurveyExchange). As the questionnaire did not have any defined ethical problems it was not subject to any restrictions and in order to answer it it was enough to enter the redirect link. In the end, 134 people answered the questionnaire, but not all the answers were complete and did not meet the requirements for analysis. After cleaning the dataset, 100 responses were suitable for full analysis. The respondents were aged between 16 and 77 years ($M = 34.49$, $SD = 16.12$). Of the 100 respondents, 50 were female (50.0%), 49 were male (49.0%) and one person marked the option 'I prefer not to say'. During the questionnaire

completion, respondents were randomly allocated to two groups - group 1 (manipulated logos) had 53 respondents and group 2 (original logos) had 47 respondents. The respondents also answered the question on the level of education they had completed. Two prominent groups were those who received a master's degree or higher (35%) and those who received a high school diploma (33%). The remaining respondents were those with a Bachelor's degree (16%) and 8 respondents in each of the groups who did not complete high school or completed some type of college. In terms of familiarity and experience with design, respondents differed: 33% indicated that they were slightly familiar, 31% moderately familiar, 20% not familiar at all, 13% very familiar, and 3% identified themselves as experts.

Table 1*Demography data of the participants*

Variable	Category	Group 1	Group 2
Age	M (SD)	34.51 (16.51)	34.47 (15.85)
Gender, n (%)	Male	28 (52.8%)	21 (44.7%)
	Female	24 (45.3%)	26 (55.3%)
	Prefer not to say	1 (1.9%)	—
Education, n (%)	Graduate/professional degree	17 (32.1%)	18 (38.3%)
	Bachelor's degree	8 (15.1%)	8 (17.0%)
	Some college	5 (9.4%)	3 (6.4%)
	High school diploma/equivalent	19 (35.8%)	14 (29.8%)
	Less than high school	4 (7.5%)	4 (8.5%)
Familiarity with Design, n (%)	Not familiar at all	14 (26.4%)	6 (12.8%)
	Slightly familiar	17 (32.1%)	16 (34.0%)
	Moderately familiar	14 (26.4%)	17 (36.2%)
	Very familiar	7 (13.2%)	6 (12.8%)
	Expert	1 (1.9%)	2 (4.3%)

Note. Note. N = 100.

3.4 Measures

An experimental research design in the form of a questionnaire with use of 7-point Likert scale was created to explore the factors and collect data of interest for this study. In addition, questions with answers on a scale were designed to explore the relationship between colour temperature and customers perception. The experimental research design can be found in the appendix C.

The main block of the questionnaire consisted of 6 logos, 3 from financial brands, and 3 from food brands. For group 1 the logos' colour temperature was altered, and group 2 had the real logos. Participants were tasked with responding to questions about their perception of the brand and expressing their opinion on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). According to the SERVQUAL model, five factors influence the perception of a company: reliability, assurance, material assets, empathy and responsiveness (Berry et al., 1988). Pappu et al. (2005), on the other hand, believe that the most appropriate method of measuring perception is to use factors such as brand awareness, brand association, perceived quality and brand loyalty. The subjects of this questionnaire were designed based on the mix of results of studies by Pappu et al. (2005), Berry et al., (1988) and the SERVQUAL model. In order to measure the perceptions of the brand by potential customers during the exposure to the logo, security values were measured with items asking about brand's reliability (*This brand seems reliable. Real group $\alpha = 0.816$, Altered group $\alpha = 0.879$*), professionalism (*I feel confident in this brand's professionalism. Real group $\alpha = 0.819$, Altered group $\alpha = 0.873$*) and trustworthiness (*I believe this brand is trustworthy. Real group $\alpha = 0.812$, Altered group $\alpha = 0.872$*) were assessed. To investigate customers' view on hedonic values several items were

created measuring for example expectation of pleasure (*The logo suggests that the brand offers pleasurable experiences. Real group $\alpha = 0.837$, Altered group $\alpha = 0.877$*), and perceived emotions (*This brand appears welcoming and cheerful. Real group $\alpha = 0.844$, Altered group $\alpha = 0.880$*).

3.5 Ethics

An ethical approval document (no.251261) was handed in and subsequently approved by the BMS ethics committee of the University of Twente before any activities related to the dissemination and release of the questionnaire . All users who followed the link to the questionnaire were invited to take part in the questionnaire . It was made available on Reddit, the paper's author's LinkedIn profile and the group messengers the author uses. A consent form was presented at the beginning of the questionnaire to inform participants of the purpose of the study.

As far as ethical issues that might affect the study are concerned, none were identified. In the case of an online questionnaire , the only risk is the possible leakage of data. For this reason, precautionary measures have been taken, such as making the data anonymous and confidential, stored on a protected server accessible only to the researcher.

3.6 Data analysis

After several processes, an analysis of the data was carried out. It was carried out when a satisfactory number of responses to the questionnaire were obtained. The analysis was carried out using the Python programming language (Version 3.11) in a Jupyter Notebook environment.

After inspection and cleaning of the database, for various reasons it was determined that of the 134 responses collected, 100 were suitable for analysis. The data was then divided into control and test groups in order to streamline the next steps and make the analysis easier to understand. During the analysis, independent samples t-tests were conducted to examine differences in means between independent groups, while Chi-square tests were used to explore associations between categorical variables. To examine the reliability of the scale, Cronbach's alpha tests were carried out in two groups, showing .95 for group 1 and .93 for group 2 respectively. These are high values, which confirm the high level of reliability of the scale. To test the significance of the relationship between the variables, a p-value of .05 was used.

4. Results

This section will present the results of the data analysis performed on the prepared and cleaned dataset. The main findings, discovered with the help of the questionnaire, will be presented beforehand. First, the results of how the participants marked the belonging of a logo to a market sector according to colour will be presented. Next, a section describing the effect of warm colours on hedonic values will be presented. After that, data on the effect of cool colours on security values will be presented. The information obtained from the analysis will be used to identify the effect of colour temperature in company logos in the food and finance sectors on consumer perception. Finally, tables will be presented in each section to visually represent the results.

4.1 Brand recognition

In both groups, participants' accuracy in classifying logos that belong to the finance sector was generally high. For Barclays, Merrill Lynch, and Prudential, the correct identification rates in the altered colour group were 96.2%, 77.4%, and 94.3%, respectively. Accuracy was similarly high for Barclays, Merrill Lynch, and Prudential in the real colour group (97.9%, 85.1%, and 97.9%, respectively). The percentage of accurate classifications did not change substantially between the fake and actual logo colour groups, according to a chi-square test of independence ($\chi^2(1, N = 300) = 1.25, p = .263$).

Table 2

Accuracy of Industry Classification for Finance Sector Logos by Group

Brand	Altered			Original		
	Correct	Incorrect	Correct %	Correct	Incorrect	Correct %
Barclays	51	2	96.23%	46	1	97.87%
Merrili Lynch	41	12	77.36%	40	7	85.11%
Prudential	50	3	94.34%	46	1	97.87%

Note. Chi-square test for group difference: $\chi^2(1) = 1.25, p = .263$.

In all colour situations, participants were very accurate in recognising the emblems of the food industry. Accuracy for the altered colour group was 98.1% for Reese's, 100.0% for In-n-Out, and 96.2% for Dunkin'. The categorisation accuracy for Dunkin', In-n-Out, and Reese's in the original colour group was 100.0%, 95.7%, and 100.0%, respectively.

For food brands, there was no discernible difference in overall classification accuracy between the fake and real colour groups, according to a chi-square test of independence ($\chi^2(1) = 0.00$, $p = 1.000$).

Table 3

Accuracy of Industry Classification for Food Sector Logos by Group

Brand	Altered			Original		
	Correct	Incorrect	Correct %	Correct	Incorrect	Correct %
Dunkin Donuts	51	2	96.23%	47	0	100.0%
In-n-Out	53	0	100.0%	45	2	95.7%
Reese's	52	1	98.1%	47	0	100.0%

Note. Chi-square test for group difference: $\chi^2(1) = 0.00$, $p = 1.000$.

4.2 Effect of warm colour on hedonic values

The independent sample t-test that was conducted showed both significant and insignificant results for the interaction between sector colour temperature and hedonic values in both study groups. As visible in Table 4 there were 3 brands with statistically significant results, that suggest the rightfulness of the H1 that warm colours positively affect hedonic values. For Dunkin Donuts participants rated the original, warm-coloured logo as significantly more hedonistic ($M = 5.69$, $SD = 0.93$), than the altered cool-coloured version ($M = 5.23$, $SD = 1.02$), $t(97.9) = -2.37$, $p = .020$. Similarly, for Reese's, the original warm-colored logo received significantly higher hedonistic ratings ($M = 5.39$, $SD = 1.02$) than the altered cool-colored version ($M = 4.90$, $SD = 1.21$), $t(97.8) = -2.21$, $p = .030$. Additionally, for Prudential which

originally has a cool-coloured logo, the warm-coloured version led to significantly higher hedonistic ratings ($M = 4.59$, $SD = 1.18$) than the original ($M = 4.11$, $SD = 1.24$), $t(95.1) = 1.99$, $p = .050$. No significant differences were found for Barclays, $t(91.0) = -0.90$, $p = .372$; In-n-Out, $t(96.0) = -0.69$, $p = .493$; or Merrill Lynch, $t(95.3) = 1.28$, $p = .205$.

Table 4

Colour temperature effects on the hedonic values

Brand	Warm		Cool		t (df)	p
	M	SD	M	SD		
Barclays	3.689	1.070	3.899	1.253	-0.897 (91.0)	.372
Dunkin Donuts	5.686	0.926	5.226	1.018	-2.365 (97.9)	.020
In-n-Out	4.596	1.460	4.396	1.429	-0.689 (96.0)	.493
Merrli Lynch	3.863	1.222	3.543	1.281	1.276 (95.3)	.205
Prudential	4.590	1.178	4.106	1.244	1.988 (95.1)	.05
Reese's	5.394	1.022	4.901	1.207	-2.209 (97.8)	.03

Note. Independent samples t-tests were used to compare mean scores between groups. M = Mean, SD = Standard Deviation, df = degrees of freedom, t = t-value, p = significance level. Significance level set at $\alpha = .05$.

These findings, which show significant impacts for three of the six brands, partially support the hypothesis that warm-colored logos lead to higher hedonistic values (H1). The effect's direction varied by brand, indicating that color's impact on value perception may be influenced by brand identification or familiarity.

4.3 Effect of cool colour on security values

The second part of the analysis, concerning the effect of cool colours on security values, Independent samples t-tests were again performed. The results, visible in Table 5, showed significant or almost significant results were found for 3 brands' logos. For Merrill Lynch, participants rated the original cool-coloured logo significantly higher on security values ($M = 5.23$, $SD = 1.07$) than the warm-coloured altered version ($M = 4.60$, $SD = 1.24$), $t(97.9) = -2.73$, $p = .007$. This supports the hypothesis that cool colours enhance perceptions of security more than warm colours (H2). A similar, though marginally non-significant, trend was observed for Barclays, with the original cool-colored logo ($M = 5.06$, $SD = 0.98$) rated higher than the altered warm version ($M = 4.68$, $SD = 0.98$), $t(96.6) = -1.91$, $p = .060$. Likewise, Prudential showed a nonsignificant trend in the same direction, $t(91.1) = -1.80$, $p = .076$.

No significant color-related differences in security ratings were found for Dunkin, $t(96.7) = -0.05$, $p = .960$; In-n-Out, $t(98.0) = 0.53$, $p = .601$; or Reese's, $t(98.0) = -0.11$, $p = .910$.

These findings provide partial support for hypothesis H2, suggesting that cool-coloured logos, especially for financial businesses, may improve security perceptions compared to the warm coloured logos. Nevertheless, the effects varied throughout the sample and were brand-specific.

Table 5*Colour temperature effects on the security values*

Brand	Warm		Cool		t (df)	p
	M	SD	M	SD		
Barclays	4.684	0.981	5.059	0.980	-1.907 (96.6)	.06
Dunkin Donuts	3.798	1.004	3.788	1.011	-0.050 (96.7)	.96
In-n-Out	3.819	1.033	3.934	1.152	0.525 (98.0)	.601
Merrli Lynch	4.604	1.240	5.234	1.066	-2.733 (97.9)	> .01
Prudential	5.316	1.190	5.676	0.790	-1.797 (91.1)	.076
Reese's	3.984	0.897	3.962	1.027	-0.113 (98.0)	.910

Note. Independent samples t-tests were used to compare mean scores between groups. M = Mean, SD = Standard Deviation, df = degrees of freedom, t = t-value, p = significance level. Significance level set at $\alpha = .05$.

The results provide moderate evidence to suggest that cool colours may have a greater impact on the security values among customers, potentially increasing trust and willingness to engage with a particular financial company. While some financial brands with original cool-coloured logos (e.g., Merrill Lynch) were rated significantly higher in security values, this effect was not consistent across all brands, and some results approached but did not reach statistical significance. Conversely, warm colours in the food companies' logos did not lead to increased perceptions of security and were consistently rated lower than financial brands on this value. The significant interaction between colour temperature and difference in scores in hedonic and security values in the performed independent sample t-tests suggests that the impact of logo colour is value-dependent. The tests indicate that warm colours tend to enhance hedonistic

perceptions, while cool colours are more strongly associated with security - a pattern that is observable, though with some variability, across both groups in the study.

5. Discussion

The aim of this study was to explore and examine how the temperature of the colours used in the logos of brands from the food and financial sectors affects their perception by consumers. The focus of this study was on the dominant values for the sectors in question, namely hedonic and security values respectively. To this end, a questionnaire was developed, the content of which explored the preferences and perceptions of the participants, who were exposed to the logos. One group was exposed to the original logs, and in the second group the colour temperature of the logs was changed to the opposite. Only existing brands were analysed, to ensure that nothing other than the colour temperature was altered and could not influence the final result of the study. This section presents the main results of the study, its possible limitations, as well as theoretical and practical implications and recommendations for future research.

5.1 Main findings

The aim of this study was to answer the question “How does the colour temperature in company logos influence consumer perception in the financial and food industries?”, with the hypotheses put forward by the author to help. In the results obtained during the data analysis, it can be assumed that partial confirmation was found for most of the hypotheses. Starting with the recognition of the sector through the temperature of the colours present in the logo, the study did

not confirm the author's thesis. The participants in the study, when seeing brands with different colour temperature versions, were not guided by these when choosing which market sector they belonged to. This is in contrast to a study by Kim and Lim (2019), who point out that there must be a correlation between the existence of similarities in the logos of brands from the same sector. According to the existing literature, brands from the financial sector as well as the food sector place certain colour temperatures in their logos to better reflect their values and make it easier for customers to recognise their activities (Muniz et al., 2023; Su et al., 2019). However, the results obtained during this study indicate that customers succinctly recognise which industry the brand comes from without paying attention to the temperature of the colours in the logo. It can therefore be concluded that colour alone, without any additional context, is not a sufficient clue to identifying the industry. These results may, however, be distorted by the prior knowledge of the participants of the experiment about the brands studied. As the logos used for the study were the logos of the leaders in the respective industries, it can be assumed that even after the change of colour temperature, customers recognised the brand by the logo for reasons other than the colour itself, such as shape, text, and other elements of the logo, which were left in the original.

However, the colour was partially relevant when participants evaluated and established their perception in relation to the company, being exposed only to the logo. This confirms that, despite its lack of impact on sector recognition, colour is an important factor in shaping the overall impression of a brand. The study showed that when evaluating logos in warm colours, hedonic values for specific companies were rated higher than when they were shown in cool colours, confirming the author's hypothesis. The results indicate that when logos were evaluated in warm colours, hedonic values for specific companies were rated higher than when they were

shown in cool colours, confirming the author's hypothesis. This is also a result that confirms the assumptions made earlier by Buether (2014), who assumes that colour temperature influences human psychology and perception. The findings partially confirm the positive effect of warm colours on increased perception of hedonic values. This implies that warm colours can increase the perceived attractiveness and emotional closeness of a brand, which can be particularly important in the food industry, for example. This is also supported by a study by Johns and Pine (2002), who came to similar conclusions.

Furthermore, for some of the researched examples an existing relationship was also found between high scores in security values when the company logo was presented in cool temperature colours. The scores obtained by these logos were higher compared to logos in warm colours, which were also rated in terms of security. It can be speculated that cooler shades, such as blue or navy, inspire greater confidence and a sense of stability, which is particularly applicable in the financial industry. This is also an assumption brought up in the research of Hynes (2009), who suggests that cool colours act to stimulate the evaluation of security values such as trust, responsibility and calmness. Following these results, it can therefore be argued that the hypothesis put forward by the author has been partially confirmed, at least as far as the influence of colour temperature on the perception of emotional values and brand security is concerned. Again, this is supported by past research reporting a certain effect of colour temperature on human perception (Buether, 2014).

5.2 Limitations

While the questionnaire granted some valuable insights into the influence of colour temperature on brand perceptions and supported most of the author's hypotheses, several limitations should be acknowledged. One major limitation of the study was the relatively small sample size, with only 100 fully completed responses available for analysis. This limited number of units may affect the generalisability of the findings. This is a due limitation that is dictated by the short period of data collection and the limitations associated with the author's sharing channels, thus limiting the sharing of the questionnaire .

A second important limitation was the use of well-known brands as examples of logos. Despite the manipulation of colour, prior familiarity with the brands may have influenced the judgements of participants, who may have suggested prior associations and opinions about the brand rather than the appearance of the logo itself. This, in turn, may have distorted purely perceptual responses to colour and partly affected the accuracy of conclusions regarding the impact of colours on perceptions of the business sector. For people who were not familiar with the brand, for various reasons, this had no effect, but the questionnaire was aimed at a large audience, so it was to be expected that some participants would be familiar with the brands and their logos that were used in the experiment.

Another limitation of the study concerns the adopted scope of analysis. The experiment only focused on one visual aspect of the logo - colour temperature (warm vs. cool colours), deliberately omitting other graphic components that could influence perception. Although the results and the existing literature on the topic of logo design indicate that colour is important in

the perception of a brand's industry affiliation, it should be emphasised that colour is only one of the many elements that make up logo design and does not function in isolation from the others. In fact, the perception of a logo is also influenced by factors such as shape, typography, proportions, symbols used or cultural context, which, together with colour, create a coherent visual message. For example, round forms can evoke associations with accessibility and openness, while sharp lines or geometric compositions are often associated with professionalism or technology. The omission of these variables from the analysis means that the results may present a simplistic picture of the actual process by which consumers categorise brands, especially in an environment where interaction with a brand is not limited to its logo. It is therefore important to be aware that participants' reactions may vary depending on the overall visual and situational context. Future research should therefore consider a more comprehensive approach that takes into account the multidimensional nature of logo design, as well as the potential interactions between its different elements. Such an approach could provide a more complete picture of the perceptual mechanisms that guide consumers in their evaluation of brands.

A final limitation of the study is the limited generalisability of the results obtained due to the way the experimental materials were presented. During the study, logos were presented as isolated, independent graphic elements, without the context or visual environment in which they usually function in reality. Meanwhile, in practice, logos rarely exist in isolation - they usually appear in a specific environment, such as on a website, product packaging or advertising, and their perception can be strongly influenced by the presence of other elements of a brand's visual identity, such as background colours, slogans, typography or accompanying content.

Overlooking this context may affect how participants interpret the logo and limit the accuracy of conclusions in relation to real consumer situations.

5.3 Theoretical implications

A study on the effect of colour temperature in logos on customer perception of the brand brings a new perspective to existing colour perception theory in the context of branding. Unlike previous studies, which often analysed colours in isolation from the industry, this study shows that perceptual effects are strongly dependent on context - especially industry, in the case of this study gastronomy vs. finance. The results suggest that colour in logos does not work universally - its interpretation depends on consumers' habits and expectations of the market category. The qualities attributed to warm and cool colours in the literature were also confirmed: warm colours had a positive impact on hedonistic values, while cool colours scored higher in security categories in the context of brand logos. In addition, by examining the recognition of brand specialisations by the colour present in the logo, it was found that the temperature of the colour had no influence on the misidentification of the brand as food or financial. This goes against the trend that most brands in the financial sector use cool colours in their logos and food brands use warm colours. ING Bank, whose main colour is orange, can be seen as a suitable example.

As some of the results are not in line with previous assumptions and differ from the market assumptions, it is recommended that further research be conducted to take into account, for example, different colour combinations, not just single colours. In addition, it should be taken into account that the study involved brand logos that are well known - therefore it is suggested

that research should be carried out using a test to see whether the effect lasts when the brand is known vs. when it is not. It is also worth checking whether the effects observed in this study are sustained in different cultural and situational contexts, e.g. during economic crises or in times of high social uncertainty.

In conclusion, the colour temperature in a logo should not be considered as a mere aesthetic treatment. It is a complex communication tool that, when used appropriately, can significantly influence the consumer's perception of a brand.

5.4 Practical implications

This study examined how colour temperature - understood as warm versus cool colours - influences the perception of logos and their attribution to specific sectors, such as the food and financial industries. The main aim of the analysis was to investigate whether the colour scheme used in logos influences the evaluation of values attributed to the brand, especially hedonic values and feelings of security, and whether it is a significant factor in the classification of logos into specific industries. Based on the results, it can be concluded that the colour of the logotype plays a significant role in shaping the perception of the brand and in attributing certain characteristics to the brand. Colours turned out to be not only a carrier of emotions, but also an element supporting image building - especially in the context of consumers' expectations of a particular industry. The identified differences in the perception of logos with different colour temperatures suggest that a conscious choice of colours can strengthen the consistency of visual communication and increase the relevance of the brand message. The accumulated knowledge can be successfully applied in the process of designing a visual identity tailored to the specifics

of a given market and audience preferences. In the context of building strong and credible brands, taking into account the effects caused by colour becomes an essential element of an effective branding strategy.

In conclusion, in order to consciously shape the brand image through the design of a logotype, it is important to consider, among other things, the colour scheme (with particular attention to its temperature), but also how it interacts with the other elements of the visual identity. The balance between form, colour and industry context can significantly affect the effectiveness of the brand message and its perception in the eyes of consumers.

5.5 Recommendations

Considering the results and the discovered limitations of the conducted study, several recommendations can be made for future research directions. First and foremost, it would be worthwhile for future research not to be limited to the analysis of colour temperature, but to also consider other factors that influence the perception of a logo - such as shape, typography, presentation context or visual environment. This will provide a better understanding of how different design elements work together to shape brand perceptions.

In addition, future research projects could benefit from qualitative methods, such as interviews or focus groups, which will provide deeper insights into participants' thinking and their associations and feelings towards colours and visual identity. This type of approach can enrich the quantitative data with contextual explanations.

Additionally, future research could focus on testing the practical effectiveness of strategies based on the findings of this study - for example, by testing consumer reactions to specific campaigns or brand visual elements in realistic market conditions.

6. Conclusion

The analysis focused on the relationship between colour temperature in brand logos and customers perception, which is often underestimated and which can play a key role in brand communication. The results showed a clear tendency to assign hedonistic values to logos with warm colours, while security values to logos with cool colours. This colour distinction proved to be not only statistically significant, but also reproducible in both research groups, clearly confirming the hypothesis regarding the relationship between colour temperature and customer perception. Furthermore, this effect indicates the strong emotional connection that colours evoke, which can be used effectively in branding strategies. There were no significant differences in the way the logo was classified in the sample, suggesting there is no effect of colour temperature on classifying the brand to the food or finance sector. This indicates that colour temperature can be a universal visual that does not lead to misunderstanding the brand's field of work. In conclusion, the study provided valuable information on the role of colour as a strong visual signal shaping brand perceptions and industry affiliation. Even after correctly identifying the market sector in which the brand operated, participants relied on the colour of the logo, highlighting the importance of thoughtful use of colour in the design of visual identity and marketing strategies. These findings provide a solid basis for further research that could consider other design factors,

such as typography, shape or layout, or test the effectiveness of colour use in real-world marketing campaigns by measuring its impact on consumer behaviour and brand loyalty.

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Appendices

Appendix A

Search string: (color* OR colour* OR "warm color*" OR "cool color*" OR "cold color*") AND (logo* OR branding OR "brand identity") AND (influence OR impact OR effect) AND (perception OR attitude OR impression OR "consumer response") AND (customer* OR consumer*)

Appendix B

Use of Artificial Intelligence statement: During the preparation of this work, I have used a Translation Tool “DeepL” and “Quillbolt” to enhance and elevate the linguistic level of the paper. The parts were also later edited by me and I take full responsibility for the contents present in this paper.

Appendix C

5/6/25, 4:58 PM

Qualtrics Survey Software

**Informed consent opening statement****Infomed consent opening statement**

Dear participant,

You are invited to participate in a research study about 'influence of cool and warm colors in company logos on customers perception'. This study is conducted by bachelor student of Communication Sciences at the University of Twente in the Netherlands in order to gather data for their graduation thesis.

The purpose of this study is to find out how color temperature in the company logos are influencing the perception of customers. It will take you approximately 10 minutes to participate in the study. The participation is anonymous and only your participant number is used for further analysis. The data will be used for research and educational reasons and will be deleted on July 30th, 2025.

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Qualtrics Survey Software

Your participation in this study is completely voluntary and you can withdraw, without giving a reason, at any time. It is believed there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of the researchers ability your answers in this study will remain confidential. The researcher minimizes all risks by storing the answers on a secure drive, only accessible for the researcher and supervisors and delete it within the given time frame. You can further request your data to be deleted at any time by sending an email to the responsible researcher.

Thank you for your efforts.

Kind regards,

Antoni Wegrzyk
a.m.wegrzyk@student.utwente.nl

After reading the information above, do you understand and agree to participate in this study?

- ☐ Yes, I understand and want to participate in this study.
- ☐ No, I do not wish to participate in this study.

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Qualtrics Survey Software

Demographic questions

The first set of questions are related to who you are as a person. This information cannot be used to identify you, so please answer honestly.

What is your age? (in years)

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer not to say

What is the highest level of education you have completed?

- ☐ Less than high school
- ☐ High school diploma or equivalent
- ☐ Some college

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Qualtrics Survey Software



	Completly disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand feels friendly and approachable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in this brand's professionalism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this brand is trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



The following statements are about the logo you can see on the top. Please respond to them.



	Completely disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand feels friendly and approachable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in this brand's professionalism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this brand is trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements are about the logo you can see on the top. Please respond to them.

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Qualtrics Survey Software



	Completely disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand feels friendly and approachable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in this brand's professionalism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this brand is trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



5/6/25, 4:58 PM

Qualtrics Survey Software

The following statements are about the logo you can see on the top. Please respond to them.

[illegible]

[illegible]

The following statements are about the logo you can see on the top. Please respond to them.

[illegible]

Qualtrics Survey Software

[illegible]

The following statements are about the logo you can see on the top. Please respond to them.

[illegible]

5/6/25, 4:58 PM

Qualtrics Survey Software

	Completely disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Original logos

In this section you will be asked again to honestly respond to the statements about the **original** logos of the companies you will see on the top of the page. The answers range from completely disagree, to slightly disagree, somewhat disagree, neutral, somewhat agree, quite agree, and extremely agree.

The following statements are about the logo you can see on the top. Please respond to them.



	Completely disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand feels friendly and approachable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in this brand's professionalism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this brand is trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following statements are about the logo you can see on the top. Please respond to them.



	Completly disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand feels friendly and approachable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident in this brand's professionalism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this brand is trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



The following statements are about the logo you can see on the top. Please respond to them.

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Qualtrics Survey Software

[illegible]

5/6/25, 4:58 PM

Qualtrics Survey Software

[illegible]

The following statements are about the logo you can see on the top. Please respond to them.



Prudential

[illegible]

Qualtrics Survey Software

[illegible]

The following statements are about the logo you can see on the top. Please respond to them.

[illegible]

5/6/25, 4:58 PM

Qualtrics Survey Software

	Completely disagree	Slightly disagree	Somewhat disagree	Neutral	Somewhat agree	Quite agree	Extreme agree
This brand seems like it cares about its customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would consider engaging with this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recognize this brand if I saw it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Survey

Thank you for your participation in this study and helping me graduate!

This survey was about the effect of colors in logo design, specifically on the influence on customers' perception of cool and warm colors in food and finance companies logo design.

If you have any questions or comments about the survey, you can reach me at a.m.wegrzyk@student.utwente.nl or enter them in the box below.

Appendix D

Date	Database	Search String	Number of Hits	Relevant Hits
10 March 2025	Scopus	(color* OR colour* OR "warm color*" OR "cool color*" OR "cold color*") AND (logo* OR branding OR "brand identity") AND (influence OR impact OR effect) AND (perception OR attitude OR impression OR "consumer response") AND (customer* OR consumer*)	104	12
24 March 2025	Scopus	(colour* OR color*) AND ("brand identity" OR branding OR logo*) AND (impact OR effect) AND (consumer perception OR customer perception)	61	8
6 April 2025	Scopus	("warm colour" OR "cool colour" OR "color temperature") AND (branding OR "brand design") AND (consumer* OR customer*)	3	1
17 April 2025	Google Scholar	(color* OR colour*) AND (branding OR "visual identity") AND (effect OR influence) AND (consumer*)	81	11

