

LAB University of Applied Sciences
Faculty of business administration, Lappeenranta
Degree Programme in International Business
Logistics and supply chain management

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The effects of color on the decision-making process of young customers in the Finnish Supermarket grocery retail sector

Thesis 2020

Abstract

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The effects of color on the decision-making process of young customers in the Finnish supermarket grocery retail sector, 79 pages, 1 appendix.

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Instructors: Lecturer Jarmo Laukkanen and Mika Tonder, LAB University of Applied Sciences;

The objective of the thesis is to determine whether or not color have an impact on the decision-making process of young customers in the Finnish supermarket grocery retail sector.

The data for this thesis was collected through published literature and pre-existing studies for the theoretical parts of the study, and a survey was conducted using online questionnaire through social media platforms and private emails to clarify the effects of color on the target group.

The study found that color in general has a marked impact on shoppers' choices and decisions, and that warm colors are more favoured by impulsive shoppers, and can shorten the length of their shopping trip, while cool colors can do the opposite, by calming customers and extending the duration of their stay. The study also found that green is widely associated as healthy and eco-friendly, while blue is considered to be of high-value.

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Appendices

Appendix 1 Survey on the effects of colors on the young consumers' decision-making process in the Finnish grocery retail market.

1 Introduction

1.1 Thesis background

1.1.1 Thesis topic

The topic of color in grocery retail has not seen much research, as most literatures of this decade mainly focuses on the effects of color on online retail, not physical retail of foods and consumer goods in supermarkets. This research aims to shed some light on the field of color marketing and what role it plays in the customer's decision-making process, and how it applies to the Finnish grocery retail market.

The main value that this research may bring is that it may be a stepping stone for further research into the effects of the color dimension on the sales of supermarket chains in Finland.

1.1.2 Objective

The main objective of the thesis is to determine whether or not there is an impact from color on the customer buying behavior in the Finnish grocery retail market.

This is only a small-scale research that mainly targets the South Eastern half of Finland and thus a target has been set to achieve a greater understanding of color and how it can affect the customer decision-making process for customers that currently reside in Finland.

1.2 Delimitation

1.2.1 What is included

This thesis will only take into account the effects of color as a whole on marketing, as well as individual colors' effects on consumer behavior. Different aspects such as hues, saturation, shades, and color combination shall be excluded from the study, as they are complex enough to merit an independent study of their own.

The primary focus of the research, as implied by the topic, is around the Finnish Supermarket retail sector. This means the research will only care about brick-

and-mortar set up within the territory of Finland, preferably the southern half, including the areas of Helsinki, Tampere and South Karelia.

The main chains to be taken into account are grocery retail chains, which include S-market (this also includes other S-group properties like PRISMA), K-market (also including K-Supermarket, and K-Citymarket), and Lidl.

The focus group of the research will be consumers who currently reside in Finland with a valid permit, regardless of nationalities.

The main age group for the survey will be customers from 18-50 years old. This is done in order to ensure that all respondents can speak English, as it will be the main language of the questionnaire.

The language of the study is, as mentioned above, English. This is done in order to facilitate a faster and more streamlined survey process and data analysis.

Sources for secondary data acquisition are to be chosen from the publication year of 1970 and onwards. This wide publication window is chosen due to the topic's long history of prevalence to researchers world-wide.

The color psychology portion of the thesis will include some research on the color aspect in online retail also. However, the discussion of these examples only merit inclusion due to the applicability of the findings to the main topic of the thesis, which is physical retail, or brick-and-mortar retail.

1.2.2 What will not be included

The study will not discuss in any lengths the sector of online retail and other forms of retail outside the territory of Finland or the scope of supermarket retail. This automatically excludes all forms of online retail, such as Amazon.de, and other supermarket home delivery services. The only exceptions to this are the research and literature reviews, which will take into account some past studies using online retail as appendices. However, these cases will only be allowed due to their findings and results' relevance to the topic in question, namely the physical retail business in Finland.

In supermarket chains where both online and physical retail channels are present, only the physical retail, i.e. the brick-and-mortar establishments will be taken into account.

Customers who enters Finland for a short time will not be included in the research, meaning consumers from St. Petersburg, Russia coming to Finland for shopping as well as day-trip Swedish and Norwegians will not be mentioned as a part of the research.

As the research focuses mainly on grocery retail in supermarkets, stores that retails other forms of products outside of grocery will not be taken into account. This means stores like JYSK, Gigantti, Power, IKEA and Verkkokauppa will not be part of the discussion.

In stores that sell a variety of other goods alongside the grocery, only the grocery section of the store is included in the study. These stores include, but are not limited to, PRISMA (with PRISMA gaming and computerware) and Lidl (with its kitchen ware and clothes section).

1.3 Purpose, aims and research questions

1.3.1 Purpose and aims

The purpose of the thesis is to explore the various impacts of color on the decision-making process of customers in the grocery retail industry in Finland. The thesis aims at proving the existence, or lack-there-of, of a link between the color dimensions and the buying behavior of young customers in the Finnish grocery retail business, which could function as a foundation for future studies into the subject and improve the overall grocery retail business here in Finland.

1.3.2 Research questions

The research aims to answer 2 main questions, as illustrated below:

Question 1: How color affects customers' psychology?

Question 2: Does color impact the young customer decision-making process in the region of Finland?

Sub-question 1: How does color as a whole impact the young customer decision-making process in the region of Finland?

Sub-question 2: How do individual colors impact the young customer decision-making process in the region of Finland?

The main targets of the 2 questions are strategic, so as to determine, first and foremost, whether or not color psychology is proven by established publications to be legitimate by answering the first question. And with the second question, whether or not they impact Finnish customers as much as they do in other countries where the secondary research is conducted.

The lay-out of the thesis will be centered around these 2 questions and will be written so as to best illustrate the answers to these questions. The qualitative research method will be applied to answer the first question, mainly through secondary empirical data, including literature, existing studies and research, as well as books and publications that look into this topic.

The quantitative method will be applied to answer the second question, include a survey into customers in order to determine whether or not they are influenced by these factors when shopping, and to what extent should the influence exist.

Sub-questions 1 and 2 will help guide the data collection and analysis of the survey portion of the thesis. The 2 sub-questions will act as a guideline for formulating the questionnaire, as well as how the questionnaire's results will be interpreted and presented.

1.4 Thesis lay-out

The thesis lay-out will be formulated alongside the research question, and is indicative of the 2 research questions set-forth in the previous section.

The first part will be the theoretical framework, and will act as a theory part for the thesis, where the concepts of color marketing will be explored in depth using various publications and past studies into the topic, and the connection between color and scent and the customer decision-making process will be made clear and validated through existing publications and literatures.

The second part of the thesis will be the survey and it will serve to answer the second research question, which is whether or not this connection exists in the young Finnish grocery retail sector specifically.

1.5 Research methods

1.5.1 Types of methods used

The thesis will make use of both the qualitative research methodology as well as the quantitative research methodology when conducting the research.

The qualitative method will be used to review various sources regarding the color dimension, and will look into both empirical data collected about color and its impact as well as reviewing the literature that back them up.

The quantitative method will be in use during the survey portion of the study, and will be used to evaluate the consumers' buying behavior in the Finnish market and gage the various statistics regarding the subjects' shopping habits in Finnish supermarkets.

1.5.2 Data collection

The qualitative portion of the data collection process will include the research of various published literatures, and secondary as well as primary sources on the topic of the impact of color marketing on the customer's decision-making process. This part will be aimed at answering the first research question of "How color affects customers' psychology".

The quantitative portion of the data collection process is the survey, which is aimed at answering the third question of "whether or not color impacts the young customer decision-making process in the region of Finland".

The survey will be conducted through social media, including Facebook and Twitter. The participants will answer a short questionnaire designed to inquire about their shopping habits, and preferences through pictures. The questions will mostly be true false or multiple choices in order to ease the data processing

phase. The targeted number of respondents for the survey during its 1-week run is 150.

The survey will be conducted in English, and the age group of 18-50 has been strategically chosen in order to facilitate the language choice, as this is the age group with the most English-speakers in Finland, as compared to ages lower than 18, or higher than 50, whose percentage of English speakers are not very high (Statistics Finland n.d.).

Another reason for the choice of age group is that they are the main target customer pool for many grocery retail chains in Finland as of now, and their relationship with color, consequently, is a subject of inherent interest for any supermarket chain looking to operate in the Finnish grocery retail market.

1.5.3 Data analysis

The qualitative method will employ mainly the use of secondary analysis, including various literatures and pre-existing studies on the topic.

For the survey, Excel is the main tool to compile the data and break-down the statistics gathered from the survey. The results will be converted into graphs and charts for easier presentation and analysis further down the road. As mentioned above, the survey question is formulated mainly in terms of multiple-choice questions and spectrum-based questions. The survey will make plenty of use of picture and graphic data, and they will be analyzed and explained later on.

2 Theoretical framework and literature review

2.1 Specification of Grocery retail

Grocery retail is a broad term, and can often encompass a large number of items and goods. In certain cases, the term: "grocery" can be used in place of supermarket, as in "grocery store", which means supermarket in many situations.

In the context of this dissertation, the term "grocery" and "grocery retail" will be used specifically to determine stores that specializes in the retail of groceries, or grocery goods, which is defined by the Australian Federal Register of Legislation as including "a range of retail products, i.e. food, cleaning products, drinks, toiletries, and other household goods" (Competition and Consumer act 2010). This effectively narrows down the classification of brick-and-mortar grocery retailers in Finland to those establishments that operates from a physical store-front, accessible to the general public, and mainly sell the items categorized above.

In the context of Finland, this further narrows the scope of stores that fall within this category to S-market, PRISMA, K-market, K-supermaket, K-citymarket, Alepa, and Lidl. This list is, however, not inclusive by any means, but has been narrowed down to these precise stores due to their geo-availability and popularity among shoppers in Finland.

2.2 Color - definition and context

Color has long been a topic of interest for marketers. Studies into the effects of color has been a recurring area of interest for many researchers in the field of social studies in general, and of marketing and consumer behavior in specific. Color is one of the main aspects that come with first impressions, and anywhere around 62 to 90 percent of people perceive color well before other aspects and elements of their environment, thus solidifying color as one of the most important environmental aspects when it comes to business, and contributes greatly to brand recognition (Abril P.S. 2009).

Color psychology can be understood in the context of marketing as the research into the use of hues and various coloring and labeling methods to affect a customer's behavior when shopping for a particular product (Cox L.K. 2017). It is considered to be a part of visual merchandising for stores, and can be used to enhance the overall atmosphere of the store to suit different target customers and customer bases (Wanninayake W. M. C. B. 2007).

Color is considered by many to be a very powerful and important tool that can help increase conversion rates as well as improve sales through modification of customers' behavior simply by changing the color of the store's environment. This means color is one of many non-verbal forms of marketing, inciting various feelings and, in turn, reactions and behaviors from certain customers when certain colors are in use (Purely branded n.d.).

Color has long been exploited by many large retailers from even their branding and logo color choice in order to make the most out of their customers without changing much more than the color and hue, as well as color combination of their various assets, such as store wall paint, shelf color, or even to the simplest of subliminal messaging like their logo color (Lindstrom M. 2011).

This, together with today's world of fast-paced, well-educated and well-informed grocery retail market, has granted color marketing a pivotal role in the manipulation of customer behavior, and eek out an edge over competitors in such a vibrant market as that observed in recent times.

2.3 Color's perceptual impact on shoppers' behavior as a whole

Color's perceptual impact is the extent to which the customers pay attention to their color or environment, as well as how they believe color affects them on a psychological level. Color is one of the most important subliminal messaging media affecting the market and sales of most retail and service chains (Kotler P. and Keller K.L. 2006).

Color's perceptual impact is the most subjective of the variables, as it can only be gauged on an individual level, and is highly dependent on the individual in

question. Color meanings also varies from countries to countries, and from culture to culture, thus an overview of color in the context of the Finnish market needs to be established (Honari R. et al. 2014).

Although research into the impact of individual colors on the human brain and psychology is sparse and few in between, studies into how color as a whole affects human behavior and emotions are numerous and detailed. Visual, as a sense, is a very important aspect of human perception of the world. According to Natalia Khouw in the color matters publication on color symbolism, around 80% of human sensory information assimilation is through sight, or, as she put it, vision (Khouw N. 2002). This means vision is the main intake of usable information for a majority of people, thus solidifying color's role in how people perceive the world around them, and how information is processed in the human brain. Because of this, it is not much of a leap to conclude that color is a huge determiner of how customers react when they are placed in a foreign environment, which, in this case, is a supermarket.

During a shopping trip, even those that are pre-planned, people will need a 90-second window to make up their minds. The large majority of the population usually make up their minds during this 90-second timespan, meaning first impressions are extremely important. Color's role in this is much deeper when one starts considering that color will be the basis for this initial 90-second assessment in around 62-90% of the cases (Singh S. 2006). This can be telling, as it makes color one of the dominant factors to sell an item or service, and will be especially important when that sales or service occurs in a physical store, rather than through a website on a computer screen.

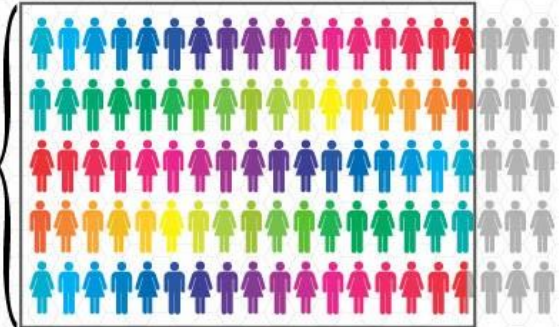
Colors' effects on physical stores on customers does not just simply stop at simply the color of the price tags, or the color of the packaging, or the background color of a website like that of the online retail sector. Color, in the sense of brick-and-mortar groceries retail goes one level deeper, and its meaning will be translated through the color of the wall, the interior design, the color of the products, and even the colors of the shelves and freezers (Lindstrom M. 2011).



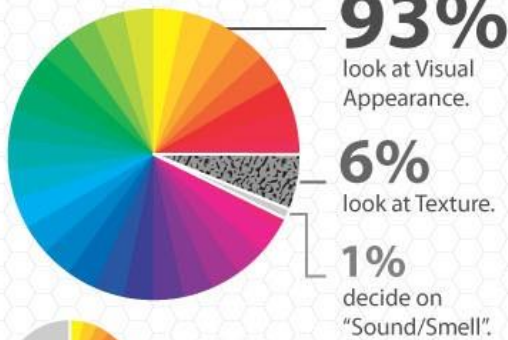
PSYCHOLOGY

OF COLOR

84.7% of consumers cite color as the primary reason they buy a particular product.



WHEN PEOPLE BUY



"Research reveals people make a sub-conscious judgment about an environment or product within **90 seconds** of initial viewing. Between **62%** and **90%** of that assessment is based on color alone."



OUTCOME OF THE USE OF COLOR



Ads in color are read up to **42% more often** than the same ads in black and white.

COLOR CAN IMPROVE

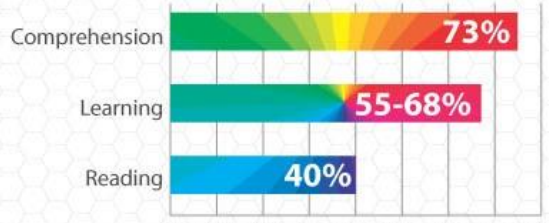


Figure 1. The Psychology of color (Kilroy D. 2014)

According to Dana Kilroy, 84.7% of people admit that their purchase decision is based mainly on the color of the product in question, and nearly 93% of customers claim to shop based on the visual appearance of a product. She also stated, according to her infographic, that more than half of the customers that refuses to return on a store out of distaste for the store's overall look (Kilroy D. 2014).

Color also affects people by their age. For example, a research by Ankita Dutta and Juri Baruah concluded that bright colors stimulate children more than dark and dull colors, and that yellow and red sticks to their memory longer than black (Dutta A. and Baruah J. 2018). This means sections of the store with bright colors and lighting will be much more memorable for young children than dull and white-colored walls. This is of great interest to marketers, as many children-centric restaurants and areas like Chuck n' Cheese, McDonald's, or the candy aisle at grocery stores here in Finland are usually decorated in bright yellow and orange, and a different, brighter shelf is also usually observed in these cases.

Finally, color's effect also depends, to a great extent, on the nature of the product in question, as customers' behavior and decisions will depend a lot on the value of the product being sold, thus its color should be planned to suit that value, and to target the correct type of customers. Customers will, for instance put in a lot more involvement into certain products if these products are of great value to them, while they will spare much less consideration and decision-making power on less valuable items (Silayoi P. and Speece M. 2004). One note should be taken from this extract that the term "value" in this instance does not necessarily mean monetary value, but it could be of other forms of value, like ethical, or personal, such as nostalgia marketing, which will be discussed in more detail during the analysis of the color orange.

2.4 Individual colors' impact on shoppers' behavior

Color's scientific impact is the actual extent to which colors affect human psychology, and the different forms of emotions and feelings they evoke to individuals when they are subjected to one color or another.

In the interest of simplicity for the research as well as the subsequent study, color in the context of this thesis, as well as in the marketing context as a whole, can

be broken down to 7 main color shades, namely, yellow, orange, red, purple (or violet), blue, green, black and white. The 3 primary colors are red, yellow, and blue; whereas the 3 main secondary colors are orange, green, and violet. White's status, meanwhile, are usually debated upon (Color Matters n.d.). However, this color is important shades for its use in marketing, so it will also merit mention in the research.



Figure 2. Color emotion guide (Huffington Post 2017)

The infographic published in the Huffington Post in 2017 7 the 8 main shades of color discussed earlier, along with a summary of their meaning to customers and brands. This is a very good representation of these colors and what they mean from the perspective of a marketer, and these colors will be discussed in-depth in the following section.

2.4.1 Yellow

Yellow is the first color that comes into contact with the human eye. Among the 7000000 colors that the human eye can perceive as being within the wavelengths of visible light, yellow is the first color to be seen by the human retina. This is because the human eye is at its most sensitive around the 555nm wavelength of light during the day, and 505nm during the night. This wavelength falls right in between the colors yellow and green, and is thus why most danger road sign and warning signs are colored in yellow with a blue tint (Orn A. 2017).

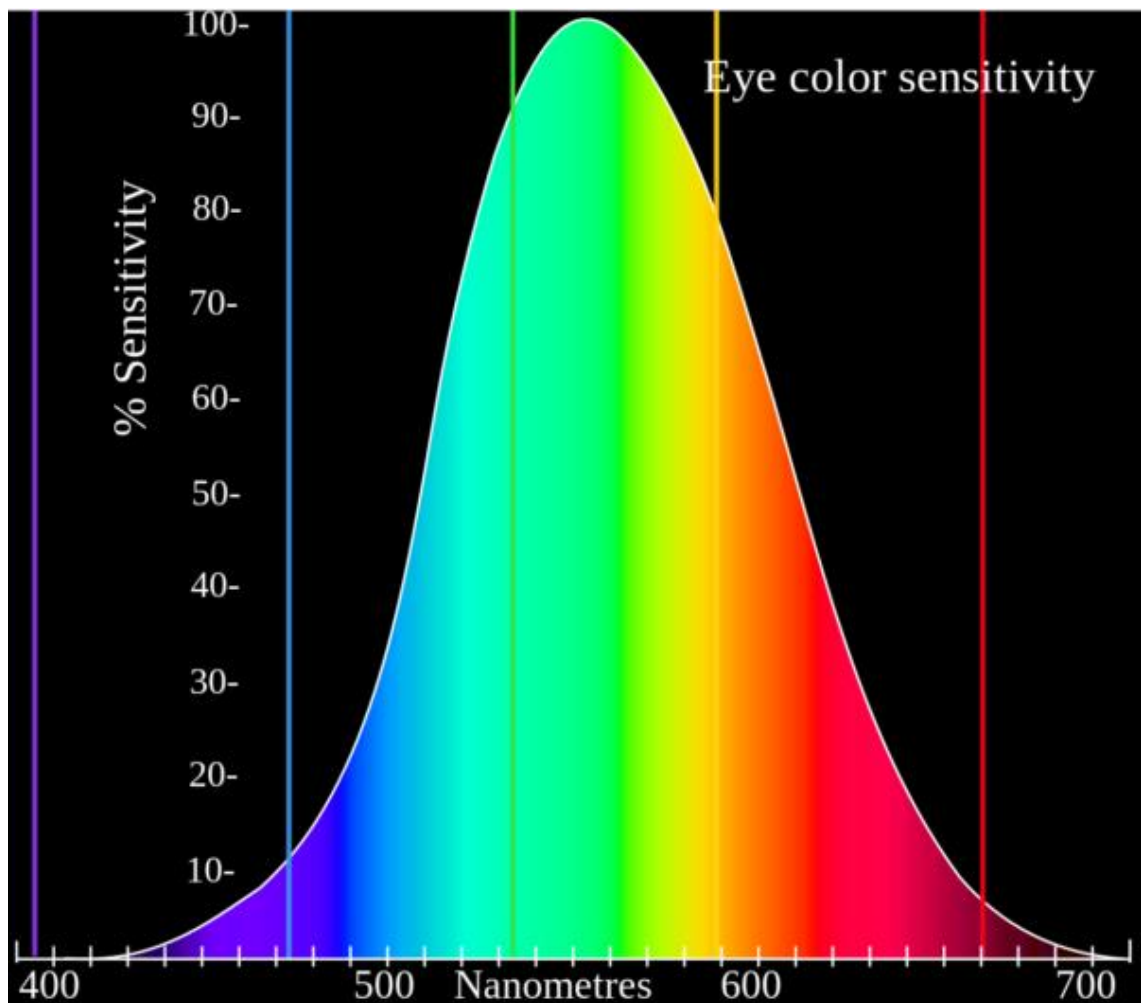


Figure 3. The light spectrum (Orn A. 2017).

On the human evolutionary scale, the color yellow has long been associated with sunshine, with warmth, and the good feeling of summer. Our ancestors used to fear the night, and yellow was usually the color that was associated with fire. Images of a roaring fire during the dead of night was a calming sign, and a signal

of warmth and companionship for humans of old. Even until this day, yellow still plays the same role it has from our inception up to the present moment. This is culturally reinforced by the fact that from the time humans are young, they have drawn the sun with a yellow hue. A campfire is either yellow or orange, and the color of dawn is also yellow.

From a marketing standpoint, yellow is the color of warmth, of friendship, and of the sun. Yellow gives people a feeling of friendliness, of warmth, and brings out their inner child, and is generally an indicator of happiness (Cimbalo R.S. et al. 1978). Yellow, in the context of marketing, is used to grab customers' attention, due to its wavelength and first contact with the human eye, and to increase the staying power of the product or store in children's mind, due to the fact that yellow is much more memorable for children between 4-5 years old than cool and dull colors (Dutta A. and Baruah J. 2018).

2.4.2 Orange

Much like yellow, orange is a warm color, and shares many characteristics with the color yellow, in terms of its cultural use in warning signs and cones. The color orange is a very nostalgic color for many Americans as well as Europeans. This is mainly due to the fact that orange has historically been attributed to the pumpkin, which, in turn, reminds people of Autumn, the harvest season, and Halloween (Color matters n.d.).

Culturally speaking, orange brings about a feeling of nostalgia for the Halloween season, for Autumn, and for the harvest season. The Autumn leaves are usually depicted as orange, and thus this color may bring back fond memories of one's childhood, playing in the Fall leaves. Nostalgia is a very powerful tool for marketing, and is an important aspect of the experience economy. Nostalgic events and experiences are much more likely to be memorized by an individual than new experiences (Angé O. and Berliner D. 2014). Customers may feel compelled to make a purchase through the nostalgia alone, which makes it a significant force to apply into any marketing context (Ju I. et al. 2015). This may be a contributor

for the success of Star Buck's Pumpkin Spice Latte in the US, as the drink incorporates all aspects of an American childhood into one drink, and packaged the drink in an orange paper bag.

Orange is also an indicator of freshness, health, and vitality as the color orange is the only color out of all the 8 colors to be taken from a fruit. The color orange gives customers feeling of freshness, and of ripe oranges, giving the item a sense of juiciness. It is not a coincidence that most citrus, including oranges, mandarin, satsuma, etc., has been associated with the color orange (Morton J. n.d.). This is one of the main reasons why many juice brands decorate their juice boxes with orange, although the content inside is of another flavor.

2.4.3 Red

The color red has long been an important color for human evolution. The color red, on an evolutionary standpoint has been an indication of danger, or prosperity. These evolutionary cornerstones, however, did not simply fade away into oblivion the moment humanity began to build a world of their own, and leaving these survival traits behind. On the contrary, these traits have been hard-wired into our subconscious that manifests as an instinct for color (Lindstrom M. 2011). And the color red seems to be the one that impacts us the most, even to this day, and has been reinforced by the largest number of studies thus far.

Historically, during the infancy of humankind as a species, our ancestors have long been adept at using color to categorize objects and events, and as a sign, either for danger or for growth and safety. Red plays a major role in the former, as the color red has been hard-wired into our genetics for being a representation of danger, with research suggesting that a bright red is exhibit by many primates and other animals as a sign of aggressiveness and territorial conflict (Hill R.A. and Barton R.A. 2005). Red is the color of blood, and of territorial animals (Edmunds M. 1974). This, as a result, is what makes red such a fearsome and powerful color even to this day, when humans have moved on and built their own world. This color will trigger the human fight-or-flight responses, which was vital for survival back during the dawn of man.

Red is also the color of fertility, and of ripening fruits. Our ancestors used the color red to gauge and measure whether a particular fruit is ripe enough for consumption, and that instinct has been passed down from generations of men, and is subconsciously affecting all of our behaviors even until today (Dominy N.J., Lucas P.W. 2001). Research has also been able to verify that red helps make women and men more attractive, further proven by the fact that the lipstick color favored by most men is red (Elliot A.J., Niesta D. 2008).

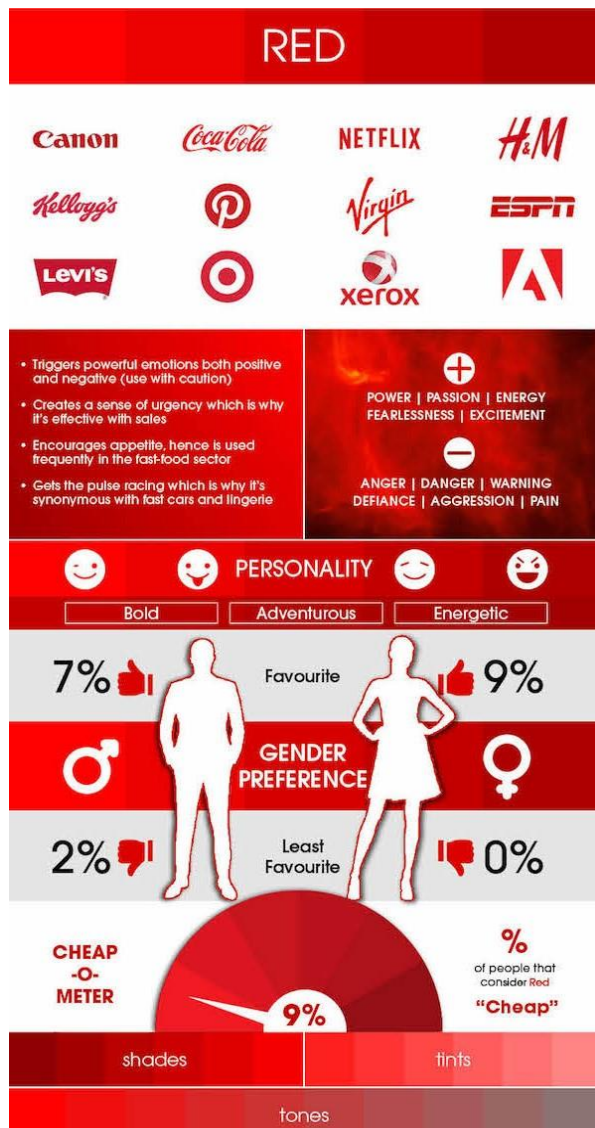


Figure 4. The color red in marketing (Cox L.K. 2017).

From a marketing and consumer behavior standpoint, red is the color of power, of speed, and of aggressiveness, which has been tested against a blue counterpart in 2004 for Olympics contestants and 2008 for competitive First-person-

shooter games (Ilie A. et al. 2008). Red is considered to be much more memorable than blue or green and has a strong staying-power for many people (Kuhbandner C. et al. 2015). As red has historically been the triggering factor for the fight-or-flight response in human, it is an exceptionally valuable color to trigger impulse responses from customers during sales, thus this is why many sales price tags are printed in red, and this is also why many more websites' call to action buttons are made red than other colors, with the second most popular being green (Porter J. 2011). Furthermore, as one looks into the historical prevalence and application of red, it has been a well-established conception that red improves foods' perceptual flavor, and help make the customer enjoy the food better. Red foods and fruits in the supermarkets' produce section looks much more appetizing, and helps make the produce section much more attractive.

The main application for red specifically, and other hot colors in general, is to target impulsive customer segments, and to target items of lower make and value in order to induce impulse purchases. This is due to the nature of the human mind, which will spend much less decision-making power on cheaper or less valuable items (Silayoi P. and Speece M. 2004).

However, drawback from excessive use of the color red may include an overwhelming feeling of anger and aggression for customers. Red should not be abused in order to guarantee effectiveness.

2.4.4 Violet (Purple)

Long considered a color of royalty, violet has been most associated with the color of kings and queens, and of high social status. From the dawn of man to the early 1800s, the color purple could only be harvested from a type of sea snail, the *Bolinus Brandaris*, and somewhere around 250000 of them would provide a mere 1 pound of the dye (Enegren L. et al. 2017). It is for this reason that the color purple was so prized and valued. No ordinary man during these times could afford enough purple wool to make a shirt from it (Schultz C. 2013). Historically, the color purple has been favored by ages of kings and queens for this exact reason, and was considered only for kings and queens in the Roman Empire. Peasants who would wear purple would be punished by death in ancient Rome (Andrews

E. 2015). As for naturally occurring color, it was extremely rare to find a purple fruit, or a purple animal, so it is very safe to say the color purple is the rarest natural color out of all of these colors (color matters n.d.).

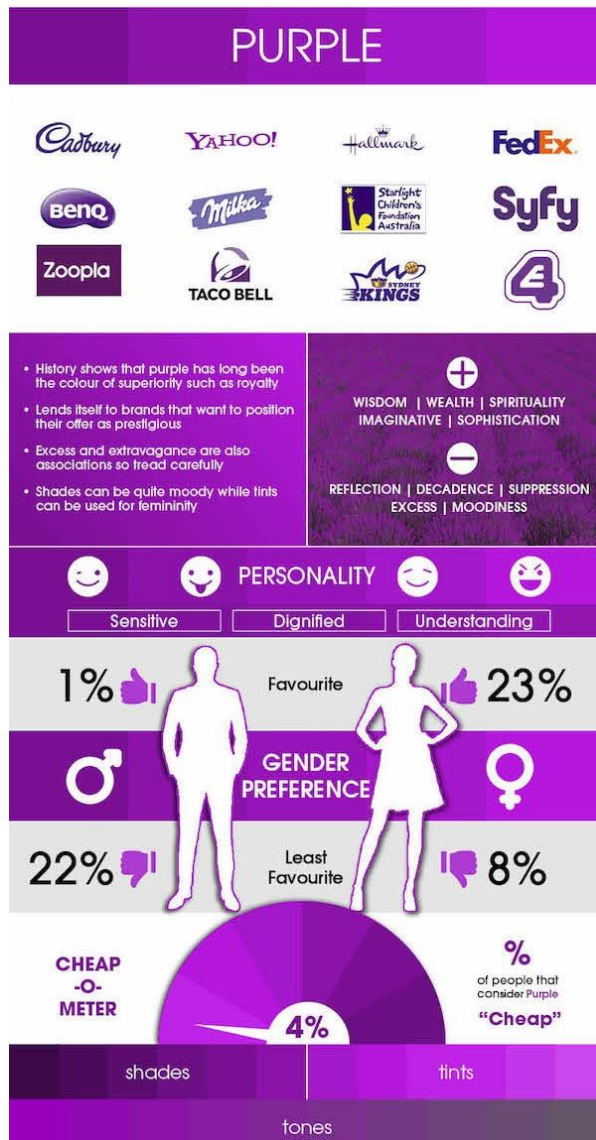


Figure 5. The color purple in marketing (Cox L.K. 2017).

From a marketing standpoint, purple has been known to evoke creativity, mystery, royalty and spirituality in many cultures, as the color purple was vague in the understanding of most people, due to its rarity in nature, and the fact that human has not seen much of the naturally occurring purple (Barell J. 2019). This color can create a sense of luxury in many contexts, and has been used by a variety of brands, such as the case of Taco Bell, with its violet branding and logo.

However, this can go the other way around, as purple is considered in some cultures and religions as being the color of death, and of funerals. The most notable region for this belief is Europe, and, since the market of interest in Finland, more accounts should be taken for the use of the color purple so as not to incite a feeling of sadness and moodiness for customers.

2.4.5 Blue

Blue is the most popular color in the color spectrum, and is favored by a majority of people, regardless of cultural background. This is quite easy to grasp, as blue is the tamest of the 8 colors. Blue is categorized into the cool color category, along with green, and is considered to be more pacifying than its hot counterparts of red, orange, and yellow (Honari R. et al. 2014). It has been found and observed that high value colors, such as in the case of blue, can lower the arousing effects of hot colors like red and yellow, thus inciting a more peaceful and calming feeling in customers (Profusek P.J. and Rainey D.W. 1987).

Aside from the calming effect, blue is also favored by most people, and has been rated the world's most popular color in 2015, and a survey conducted by YouGov in 10 countries spanning the globe suggests that blue is second to none. Even in Communist countries like China and Viet Nam, where red is considered the national color for socialism, the participants from these countries still reportedly chose blue by a 25% margin over all other colors. Meanwhile, in the Western world, blue reign supreme in 41 states in the US and all countries in the EU and the UK (Jordan W. 2015).

Blue is also rated the color for trustworthiness, and of dependability. Out of 300000 who took part in the World color survey, the largest number opted for blue being a representation of reliability (Color.com 2020). This also explains why so many insurance firms and agencies chose blue as their branding color. Blue is also the color of choice for many electronics and high-end technology such as Intel, Dell, and Paypal partly because of its reliability and dependability.

Cool colors such as blue can mainly applied in cases of non-impulsive, or conscious customers, and make their shopping trip longer and more intensive. As

the color blue is more calming, it can help make customers slow down their shopping trip, resulting in a longer stay, at the cost of less impulsive purchases (Aghazade H. et al. 2011). Furthermore, as it is favored by many people, blue can easily be applied in any supermarket context, and in any places in the World, Finland included.

Blue can also be used to counter hot colors, and can be applied in situations where the store has too much red, such as during a sale. However, this is, admittedly, not a monopolistic characteristic of blue, as the same could be said for most cool colors.

2.4.6 Green

Green is another cool color like blue, and is the second most favorite globally. Green has always been associated with nature. This is a mark on human biological evolution as a species. The color green is the most prevalent color on planet Earth, and is usually the color most often associated with life, nature, and growth.

Culturally speaking, green has been the choice color for many of the world's environmental movements and organization, and the word "green" itself has even earned its place in the Merriam Webster dictionary for its meaning in eco-friendliness (Merriam Webster n.d.). As the word green has been used for green fuel, green energy, and green city, there is no denying its cultural mark on humans as a species, as across the world, regardless of cultures, green is always a representation of the environment and health, and of growth.

The color green can be utilized for organic products, healthy products, and is ideal for use in the foods and drinks section, as it helps reinforce the idea of healthy eating in the minds of health-conscious Finns. This means the greener a produce section looks, the more lure it will have on the Finnish grocery shoppers.

Green can also be used for consumer products like batteries and other forms of toiletries as it spreads a message of eco-friendliness, thus increasing the ethical value of said products, and, at the same time, subliminally oblige customers to pick up the green energy saving battery pack or eco razor over their traditional

counterparts. This is especially true in the current era, as more and more consumers are becoming eco-conscious, with around 69% of consumers in the US and Canada are reported to care about how their products affect the environment (Park L. 2020). Along with this, according to a recent survey conducted with 1000 international participants, over 35% favor environmentally friendly purchases (Edelstein A. n.d.).

The color green is also a color of life, and of high energy. Green is the color of an I-phone nearing full charge, and of sprouts coming out from the ground. In a more geographically relevant context, green is the color of the Finnish Spring, thus making it exceptionally good for inciting a feeling of growth and life into a store, and calming the customers in the process.

2.4.7 White

White is generally not considered a color, but merely an absence of color. It is fitting that white represents the feeling of emptiness in humans. It is a color of purity, and of cleanliness. The color white is usually a representation of untainted. True white has been notoriously rare in nature, with most white objects and organisms in nature exhibiting some form of taint, thus making pure white a very clean color.

In a cultural sense, white is often used to indicate whether an object is clean or not. From teeth, to clothes, to bed sheets, sink, and toiletries, white has always meant “good” and bacteria-free. Most toiletries and cleaning substances like bleach, washing powder, toothpastes, toothbrushes and kitchen cleaning utensils have had images of an ultra-white, spotless sink, toilet or row of teeth to advertise its effectiveness (Cherry K. 2020). White is also a representation of sleek and high-tech design. This interpretation of white has only come about recently, with Apple’s all white store, to the color of the I-phone, customers have been associating white with luxurious and sleek designs for the better half of the decade (Isaacson W. 2012).

White’s application for the grocery retail chains can be quite clear, given the evidence. The section where white practically shines is the toiletries, hygiene and the baby section. White can also be combined with a number of different colors

for maximum effect. However, this point is not relevant to the scope of this thesis' study.

One key point to note is that white can also be extremely monotonic, and should not be used for the entire establishment. Not many stores and chains have been successful in incorporating an all-white aesthetic to their retailers, with one of the only exceptions being Apple, which utilized a full-white setting for their stores and this later became known as their Snow White design language (Isaacson W. 2012). However, no known groceries retailers have taken this Snow White approach thus far.

2.5 Past studies on color psychology

In this section, a host of important past studies into the impact of color on the human psychology, as well as customers' decision-making process shall be briefly summarized and analyzed due to their relevance and significance to the study featured in this thesis. These past studies will act as reflection points later on in the findings and discussion segment of the survey.

2.5.1 The Global Color Survey

The Global Color Survey is one of the many recent organized researches into the color psychology of modern people, and can provide a relatively clear insight into how people view color, and their meaning in their daily lives. This data can be extrapolated into useful knowledge for marketing purposes, and can clarify some of the points laid forward by some of the other researches of late.

The Global Color Survey is a survey conducted by the Color Matters society. The survey is one of the most inclusive public survey for monitoring colors and their meanings in people's mind in recent history. The color survey global results are updated in real time and can show what feelings people associates with various different colors at the present.

The survey includes well over 300000 people from all over the world and the results can be highlighted as follows:

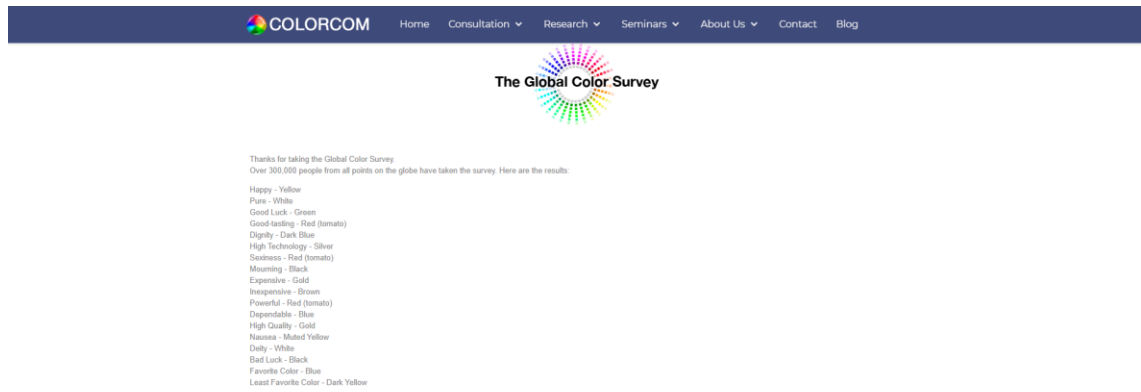


Figure 6. the Global color survey results updated in real time 15th October 2020 (Color.com 2020).

The first take-away from this survey is that a large majority of people associates the color yellow with happiness. This trend has been reinforced in other studies time and time again, and many brands have also used this point to reinforce their choice of the color yellow in their logo. One of the most famous cases for the implementation of this color is McDonald’s world-renowned golden arches. The justification for this choice of color is that the color yellow represents a warm and inviting atmosphere (Richardson H. 2017). Yellow is also a color that is often attributed to a friendly and sunny atmosphere, and has been used by many children-centric marketing campaigns, such as the Chuck e’ Cheese yellow interior design for kids, and the McDonald’s clown dressing in all-yellow apparel.

The second key point to be noted from the survey is that the color red is often associated with the feeling of power, and excitement. This has also been a well document and backed theory that the color red is a color that symbolizes power, and excitement. Red is the color of blood, and on an evolutionary standpoint, red has always been associated with danger, and the need to act quickly, or, in more simpler terms, red triggers the fight-or-flight responses in individuals much more aggressively than other colors would. The color red is also one of the most visible colors on the color spectrum, owing to its short wave-length. This indicates red’s role in the impulsive behavior of people. Other attributes of red include elevated heart rate, blood pressure and quick decision-making and reflexes (Cherry K. 2020). A large number of researches have come to the conclusion that the color red is linked to quick reflex decisions. Similar A/B tests have been conducted at

HubSpot, where a clone website featuring a red call-to-action (CTA) button, and the original featuring a green CTA button were both run for a few days, and, after 2000 visits were recorded, the results showed that the red CTA button was clicked on 21% more times than the green CTA button (Porter J. 2011). These studies and findings show that red is the color best used to get impulse decisions from the customers and entice them with a sense of urgency and increasing the chance of an impulse response and purchase decision.

The third key point to be taken from the survey is that blue is both a popular and well-liked color, as well as one that is often attributed to trustworthiness and reliability. Blue has often been used by insurance companies and some condom manufacturers due to its subliminal message of being dependable and reliable, both very important attributes for these forms of products.

2.5.2 The effect of red background color on willingness-to-pay study 2012

This recent study was conducted by Rajesh Bagchi and Amar Cheema in 2012, and published in the Journal of Consumer Research in 2013. In this research, the researchers looked into the impact of the color red on Ebay auction for the Nintendo Wii. This study was conducted online using Ebay, but the findings from this study may very well apply to the subject in question, which is physical food retail, due to the conclusions that the research reached.

The study included 3 separate studies that tests the following:

- Study 1: Test color and its effects on aggressive bidding on Ebay.
- Study 2: Effect of color on willingness-to-pay in negotiations.
- Study 3: Fixed price comparisons and process measures.

The first and second studies are of the most relevance and importance to the subject at hand, so a summary of the studies will be outline as follows:

In the first study, the researchers held 28 Ebay auctions for a Nintendo Wii bundle. The bundles were uploaded to Ebay from 9th September 2008 and the results came in on 27th September 2008. The bundles were identical in nature and item.

The only difference was the background color of the item in question (either red, white, blue, or grey). The minimum bids for all listings were set at USD 0.99.

In the second study, a similar approach was taken, but the item in question is a package vacation to South Beach, valuing at USD 790.00, and the 89 participants were asked to make an offer. The participants were also asked to rate their personal preferences for the package, as well as stating whether they were competing against the seller or other buyers.

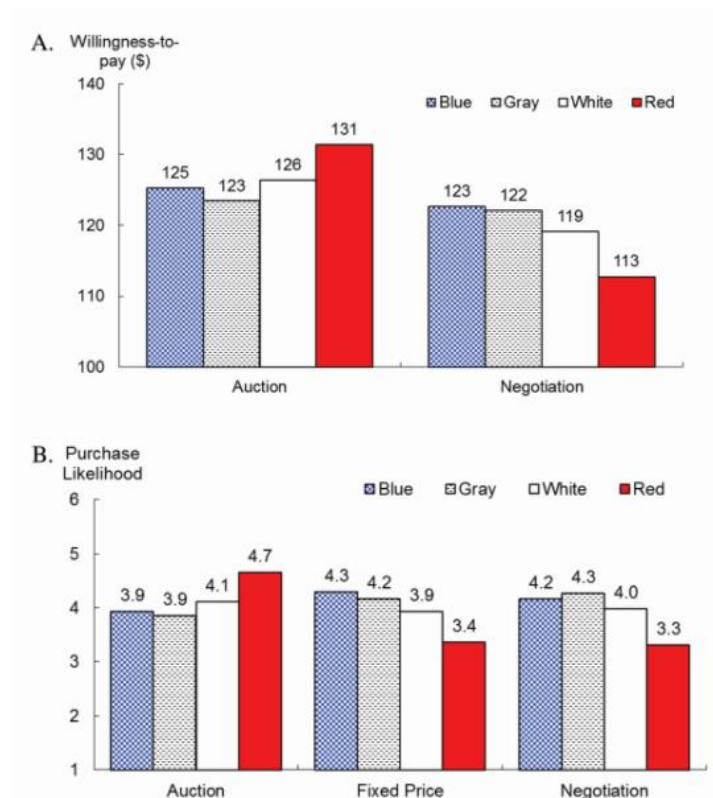


Figure 7. Impact of color on willingness-to-pay studies 1 and 2

The study concluded that the red background increases the amount customers are willing to pay for an item by a noticeable margin over blue, white or gray during a bid, but also largely reduce the willingness-to-pay for customers that are in a negotiation.

The study shows in great detail how a red background affects a buyer's decision-making process. During the first study, as the customer's main competition are other customers, they will need to outbid the other participants. The items with

the red background saw a much higher amount being bid, as compared to the other bundles, thus confirming that the red color causes more aggression and impulse decisions than the other colors do. Similarly, during the second study, as the majority of the participants (78% vs 22%) believed they are competing against the seller, the opposite happens, thus also confirm the hypothesis once again that red color will stimulate more competitiveness in customers, as compared to the other background colors. (Bagchi R., Cheema A. 2012).

3 Survey

With the preliminary theoretical data and concepts defined and established, it is time the spot light is shifted to the main focus of the paper, namely the impacts of color on the young consumers' behaviour in Finland. The data for the second part of the thesis will be in the form of a survey, whose proceedings are illustrated as follows.

3.1 Overview

3.1.1 Target group

The survey will be mainly conducted in English, targeting the age group of 18-50 years of age. The sample pool includes all customers currently residing in Finland, preferably the Southern half of the country. The nationality of the customers is not taken into account, meaning anyone within the age group can participate.

The total length of the survey is 1 week from 16th October 2020 to 23rd October 2020, and takes place on Facebook, Twitter, and private emails. The main interface for the survey is Google docs.

The target number of responses is 150 response, and the achieved number is 147 responses. This result can be deemed acceptable for the objective of the survey, as it only fell short on 3/150 participants, thus is a respectable enough of a number to continue with the data analysis.

3.1.2 Aims of the survey

The survey's main purpose is to explore and attempt to answer sub-questions 1 and 2:

- How does color, as a whole, impact young grocery shoppers in Finland during their shopping trips?
- How do individual colors impact the young grocery shoppers' choices during their shopping trips?

3.1.3 Lay-out of the survey's questionnaire

The first part of the survey (questions 1-11) will be personal questions aimed at identifying the participants' main habits, and their details to help better categorize them and give an insight to their shopping habits. These questions also take into account the perceptual impact of color on the survey participants. The questions include true/false and spectrum-based multiple-choice, which mainly asks how much impact the participants believe color impacts them on a daily grocery shopping trip, as well as how much attention they pay to the aspect of color when shopping. These will act as control questions for the main part of the survey (the second part).

The second part of the survey (questions 12-18) takes into account how individual colors impact the participants. These questions feature an array of multiple-choice and preference-based questions using texts, images and pictures of various products with tweaked color and backgrounds using Adobe Photoshop. This means this portion will only test color, while leaving every other aspects of the pictures used intact.

The full length of the questionnaire will be provided in the appendices portion of the thesis.

3.2 Analysis

For the analysis of the survey, 7 hypotheses were made in order to tackle the 2 sub-questions formed during the conception of the thesis topic, as well as test out many of the information regarding the characteristics of color. They can be listed as follows:

- Hypothesis 1: Color as a whole has a marked impacted on the shopping decision of the customer.
- Hypothesis 2: Warm colors will incite a feeling of urgency and impulse purchases, while cool colors will calm customers down.
- Hypothesis 3: Shoppers who favor warm colors tend to leave the store faster, while shoppers who favor cool colors tend to stay in the store longer
- Hypothesis 4: The color green will be more associated with healthy food.

- Hypothesis 5: Considerate customers will opt more for blue and other cool color designs, while impulsive buyers will opt more for red and other warm colors.
- Hypothesis 6: Yellow interior designs will be perceived as warmer and reminiscent of home.
- Hypothesis 7: The color purple is often associated with high quality.

Along with the 7 aforementioned hypotheses, the survey will look into the market demographic and characteristics of shoppers who participated in the survey, and clarify the following:

- The average length of each shopping trip.
- Whether or not shoppers in Finland are health-oriented.
- Whether or not shoppers in Finland are eco-oriented.

3.3 Results and findings

3.3.1 Market demographic and characteristics

How often do you go grocery shopping?
147 responses

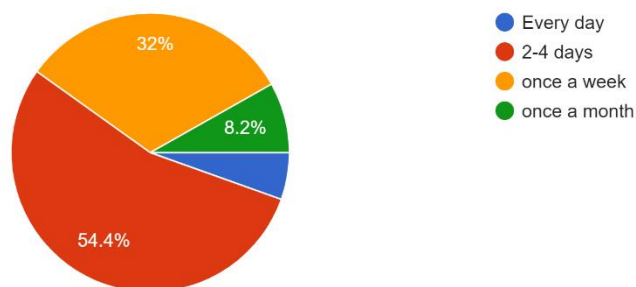


Figure 8. Average shopping frequency.

As can be seen from figure 8, shoppers in Finland has a grocery shopping frequency of 2-4 days with 54.4% of the respondents, and followed by once a week with 32.0% of the respondents.

How much time do you usually spend on each grocery shopping trip?

147 responses

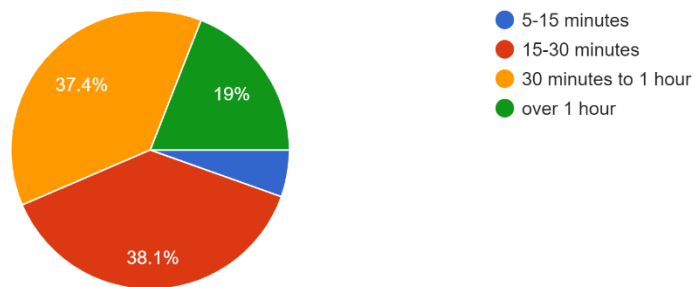


Figure 9. Average shopping time.

The average length of a shopping trip is around 15 minutes to 1 hour, with 37.4% of shoppers reporting to shop for 15-30 minutes on average and 38.1% reporting to shop for 30 minutes to 1 hour on average. The percentages of shoppers who reported to shop for over an hour and 5-15 minutes on average are 19.0% and 5.4% respectively. This statistic represents the time the average shoppers typically stay in the store, and will be used later on to reflect on the hypotheses regarding the warm and cool colors.

How much would healthiness influence your shopping choices?

147 responses

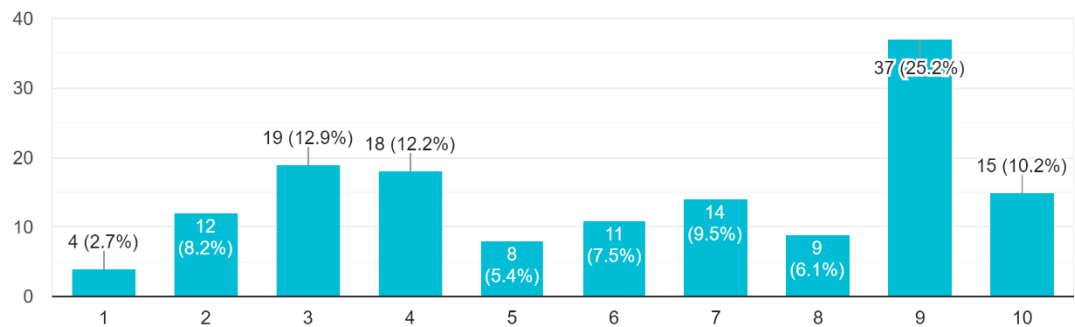


Figure 10. Shoppers' health orientation.

Customers in Finland are relatively health-conscious, and 86 respondents, or 58.5% of the total rated healthiness of a product to be of influence to their shopping choices, with these ratings ranging from 6 to 10 on a 1 to 10 grading scale

as illustrated by figure 10. Most notably, 37 out of the 147 respondents (25.2%) rated health at a 9 out of 10 for influence on their shopping decisions, which is the highest number of respondents for any single score. This goes to show that more than 50% of the respondents agree that healthiness influences their choices, while the majority of them rated healthiness as very high on the scale of impact.

Do you often think about the eco-friendliness of an item when shopping?
147 responses

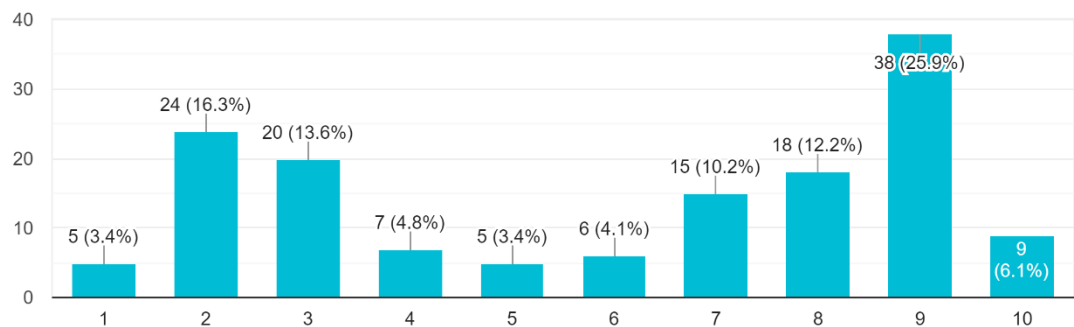


Figure 11. Shoppers' eco orientation.

The shoppers' eco priorities are interesting when displayed alongside their health-orientation. Shoppers who answered the survey are more split in the aspect of environmental friendliness than they do health-wise. This is represented by the low percentage of people who opted for the ratings of 4,5, and 6; at 4.8%, 3.4%, and 4.1% respectively.

Another interesting point to note from the results of this question is that almost the exact number of respondents rated eco-friendliness a 6 and above, which came down to 86 out of the 147 respondents, or 58.5%, and the choice with the most answers was still 9, at 38 respondents, or 25.9% of the total participants.

This solidifies yet another key characteristic of Finnish shoppers, which is that they are very environmentally oriented, and care to a larger extent about their product's impact on the environment, which fits in nicely with the previous sources on the subject.

How much attention do you pay to the store's interior designs when shopping?

147 responses



Figure 12. Respondents' store design awareness.

From figure 12, it is quite clear that the more noticed areas of the store are the shelf, the price tags, and the floor. 42.2% of the respondents reported that they notice the shelf, price tags, and the floor when shopping, while another 41.1% reported that they only noticed the shelf and the price tags. This is indicative of how important shelf, price tags, and floor coloring is when attempting to influence a shopper's behavior through color subliminal messaging, as these 3 aspects are some of the first things that come into the customers' minds when shopping.

How much attention do you pay to the colors of objects around you when shopping?

147 responses

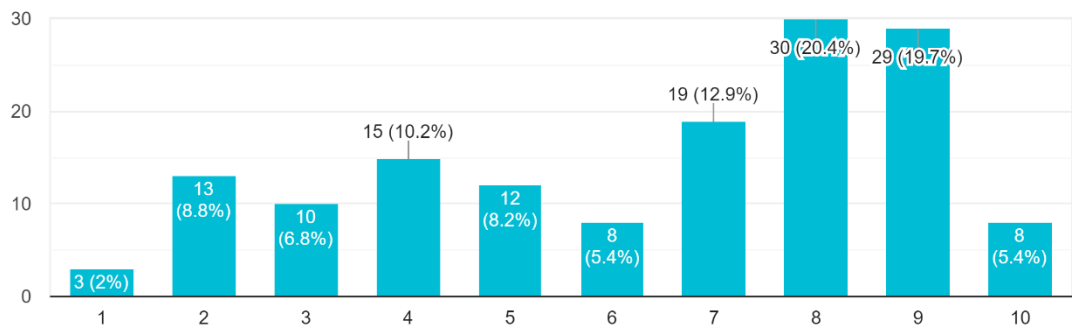


Figure 13. Respondents' color awareness.

Figure 13 paints a clearer picture regarding the object color awareness of the shoppers who part-took in the survey. It is clear that a large percentage of the respondents reported to pay attention to color on shopping, with 94 respondents,

or 63.9% rating their awareness of color at a 6 or higher, and the highest number of people (30 out of 147, or 20.4%) ranked their color awareness at 8, followed by 29 out of 147 (19.7%) rating it at a 9, and 19 out of 147 (12.9%) rating it at a 7. This goes to show that shoppers in Finland take notice of their surroundings' colors when shopping.

3.3.2 Hypothesis 1

In the first hypothesis, color is believed to be impactful in a meaningful way when it comes to the customers' decision-making process. Question 11 in the survey explores this aspect of the hypotheses, and the results are quite clear on color's connection to the shoppers' choices.

How much do you think color affects your shopping decisions?
147 responses

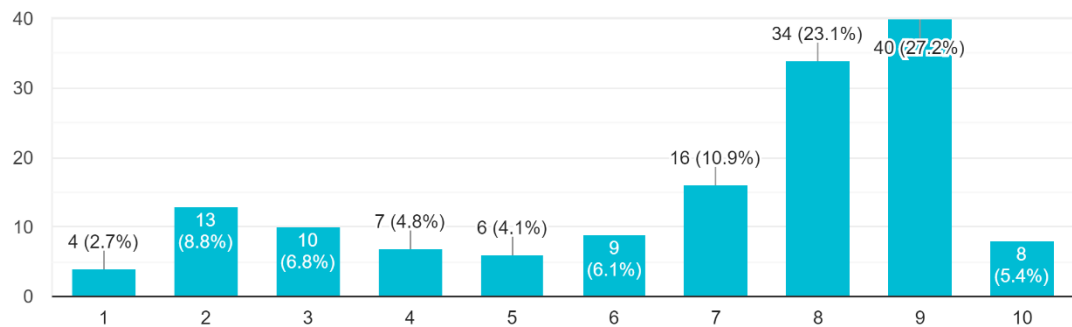


Figure 14. How much color affects respondents' shopping decisions (self-reported by shoppers).

Shoppers in Finland are highly impacted by color. Figure 14 illustrates the proportions of responses for question 11: 'How much do you think color affects your shopping decisions?', and it is very clear from the outset that color plays an important role in the customer choices in this sector, with a staggering 107 out of 147 respondents or 72.8% of the total rated color as having an impact on their shopping decisions (ratings of 6-10). Out of the 107 respondents confirming color's impact, 40 (37.4%) rated color's impact at a 9, followed by 34 (31.8%), who rated it at an 8.

These results have verified the previous studies and theoretical data regarding the overall impact of color on shoppers' decision-making process mentioned in the theoretical part of the thesis, and closely matches the 62-90% of the cases stated by Singh in 2006 (Singh S. 2006).

3.3.3 Hypothesis 2

Which of these sales advertisement makes you want to purchase the product immediately?
147 responses

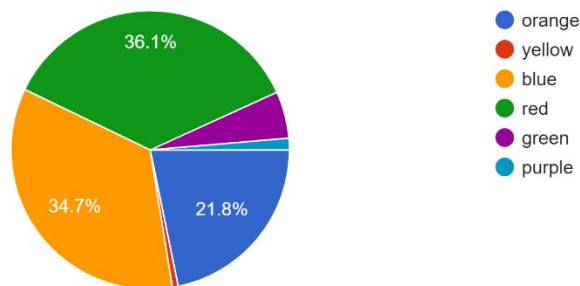


Figure 15. Sales advertisement designs that makes the shoppers want to purchase the product immediately.

Figure 15 summarizes the answers for question 12 of the survey, and is telling in terms of shoppers' stance on the impact of warm and cool colors on the impulsive nature of the purchase. The question asked which sales advertisement made the customers want to purchase the product immediately, which indicated an impulsive decision from the customer's part. The pictures in each option was the same picture digitally changed by photoshop so as to appear in different component colors. The 3 most-chosen colors were red, blue and orange correspondingly. Out of the 147 respondents, 53 (36.1%) chose the red-labelled sales advertisement, while a close runner up of 51 (34.7%) chose the blue-labelled sales advertisement, and another 32 (21.8%) opted for the orange-labelled option.

Which of these store designs give you a feeling of urgency?

147 responses

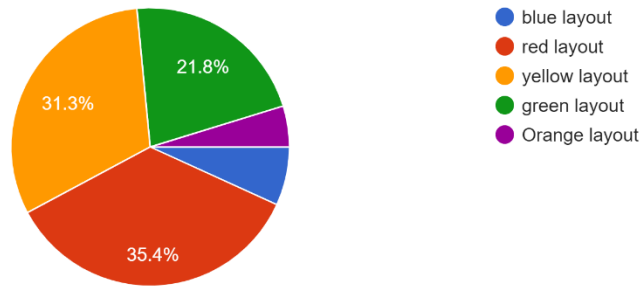


Figure 16. Designs that give shoppers a feeling of urgency.

Figure 16, which illustrated question 16 of the survey, further elaborated upon the impulsive nature of warm colors, where, out of the 147 respondents, 52 (35.4%) decided that the red supermarket design gave them a feeling of urgency, followed by 46 (31.3%) respondents who decided that the yellow design gave them the same feeling of urgency.

In both of the above-mentioned cases, warm colors were associated with the feeling of urgency and impulsiveness. With warm colors in question 12, most notably red and orange, making up 58.6% of the sales advertisement choices, and also warm colors in question 16, most notably red and yellow, making up 71.5% of the choices for the most urgency-inducing store designs.

Which of these store designs give you a feeling of calmness?

147 responses

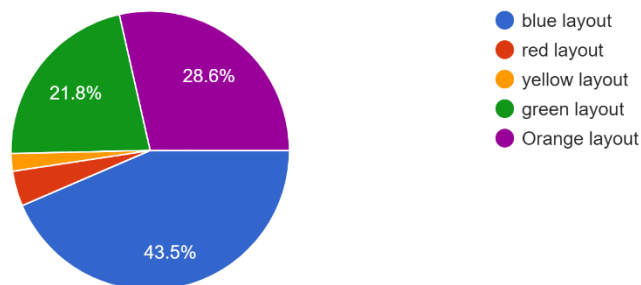


Figure 17. Designs that give shoppers a feeling of calmness.

Figure 17 shows effects of colors on calmness, and it is quite clear from first sight that blue is the dominant color for setting a calm environment for customers on their shopping trip. 64 respondents, or 43.5% of the total participants chose the blue store layout as their choice for the most calming out of the 5 stores in question, with the distant second being orange at 42 respondents, or 28.6%, and green at 32 respondents, or 21.8%. This makes both blue in specific, and cool colors in general an ideal calming factor for customer experiences, with the latter ranging at a pick rate of 65.3%.

3.3.4 Hypothesis 3

In order to answer the question of whether shoppers who favoured red leave more quickly and whether those who liked blue stay longer, data from figure 9 were extracted and cross referenced with the data from question 18's results, and statistics of the shopper's shopping time in relationship with their choice of color are illustrated in figures 18 and 19.



Figure 18. Shoppers who chose red and their shopping time.

Figure 18 illustrates the percentage of shoppers who chose the red labelled breakfast in question 18 of the survey and their average shopping time. It is quite clear straight away that the respondents who favoured red had an overall short shopping time, with 27 out of 47 (57.5%) reporting a less-than-30-minute stay in the store, as compared to the 20 respondents who stayed longer than 30 minutes.

This figure is a little more than a coin toss. However, it is still not extremely clear, as the sample pool is quite small and the figure was just 7.5% more than chance.



Figure 19. Shoppers who favoured blue and their shopping time.

On the other end of the spectrum, the relationship between the color blue and the shopper's staying time is remarkably more clear-cut, and goes well beyond chance. 30 of the shoppers who favoured blue (71.4%) reported to stay in the store for over 30 minutes, whereas none of these customers stay for less than 15 minutes. This is a 7 in 10 chance that a customer who liked blue breakfast food will stay in a store for more than 30 minutes, compared to a 4 in 10 chance that a shopper who favoured red will stay in the store for 30 minutes.

3.3.5 Hypothesis 4

Which of these store designs give you a feeling of healthy eating?

147 responses

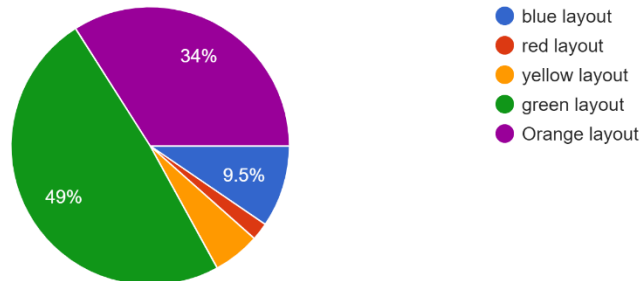


Figure 20. Designs that give shoppers a feeling of healthy eating.

As far as healthy eating is concerned, the color green is unbeatable, as nearly half of the total participants, regardless of their shopping mentality and tendency, agreed that the green store design gave them a better feeling of healthy food. A distant second for green was orange, at 50 picks (34%) and at a 2 in 3 pick rate among the remaining participants.

3.3.6 Hypothesis 5

To tackle the 5th hypothesis, 2 control questions were asked in the questionnaire in order to categorize impulsive buyers and considerate buyers. The respondents for these 2 questions will be sub-categorized into 2 main group, which are considerate shoppers, whose namesake is defined as those who rate their off-the-list purchase frequency as being 1-4 point, and impulsive shoppers, who rate their frequency of an off-the-list purchase at 7 or higher.

Do you usually shop with a groceries list?
147 responses

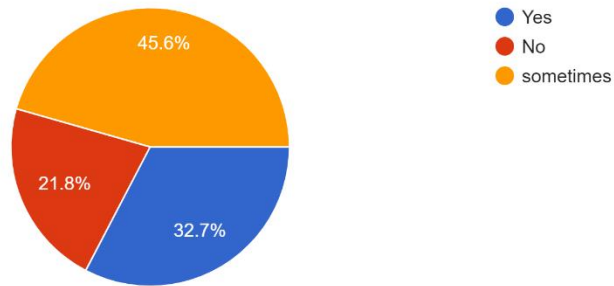


Figure 21. How often shoppers shop using a shopping list (control question 1).

How often do you buy something that is not in your groceries list?
147 responses

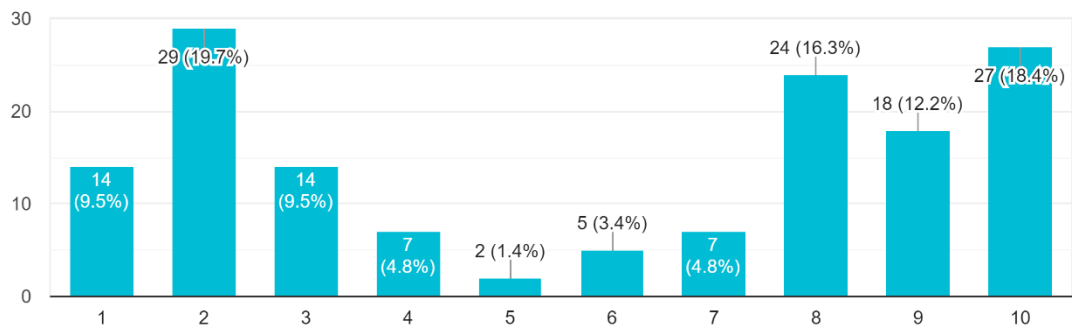


Figure 22. How often do the shoppers buy items that are not on their shopping list (Control question 2).

These results will be used to cross-referenced with the results for the answers to question 18, much like how hypothesis 3 was handled. The findings are summarized in figures 23 and 24 below.

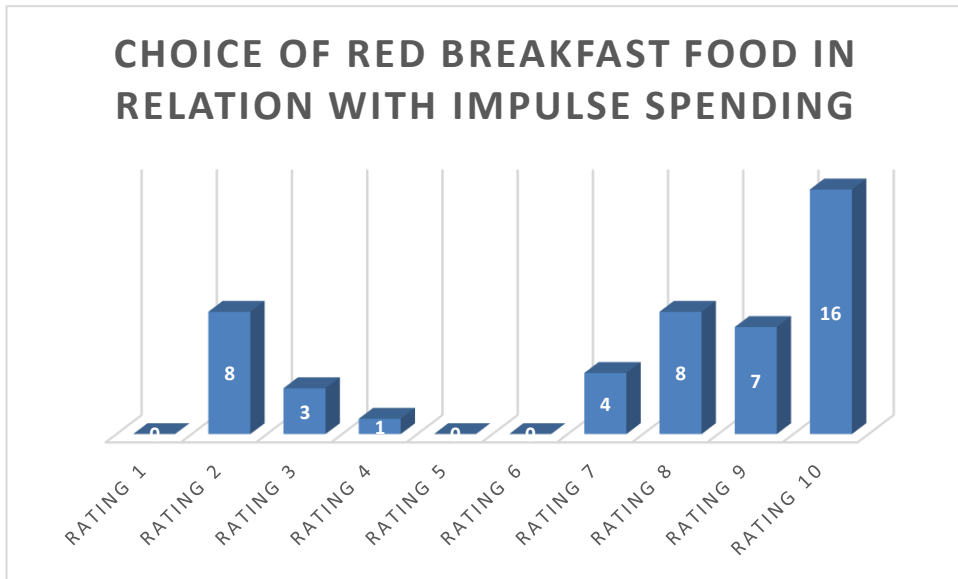


Figure 23. Choice of red breakfast food in relation with impulse spending.

Figure 23 summarizes the results of the respondents who chose the red breakfast food and their self-report on off-the-list spending. It is quite clear from the get-go that a connection exists between the choice of packaging color and impulse spending. Around 74.5% of shoppers who chose the red box of breakfast cereal also reported to spend more on items not on their shopping lists (rating of 7 to 10), while only 25.5% of shoppers who chose the red box reported to rarely buy anything off their shopping lists.

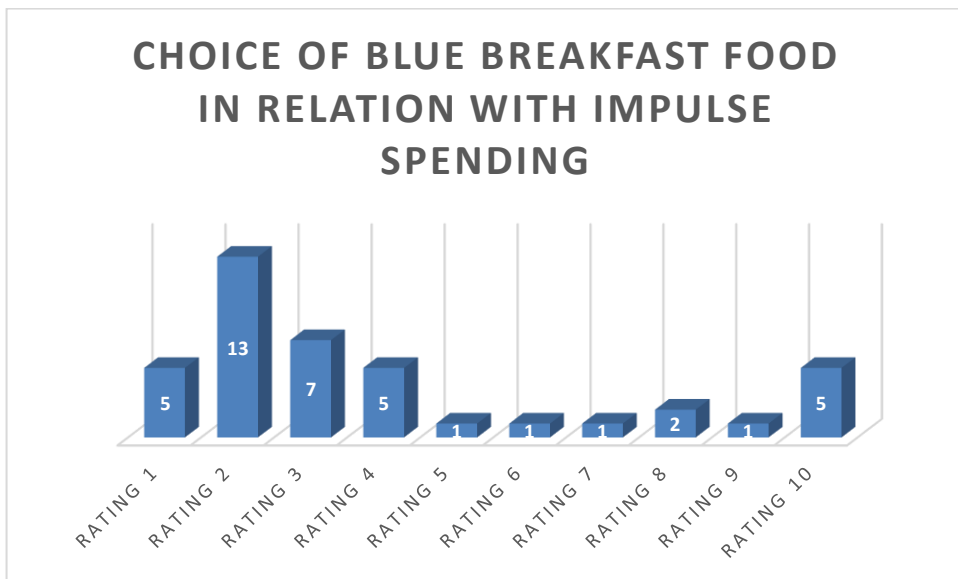


Figure 24. Choice of Blue breakfast food in relation with impulse spending.

Meanwhile, the exact opposite is true for customers who chose the blue cereal box. A reported 30 people, or 71.4% of shoppers who chose the blue cereal box reported to rarely spend on items off their lists, while only a mere 21.4% of those who chose the blue box admitted to spending frequently on items not on their shopping lists.

3.3.7 Hypothesis 6

Which of these store designs give you a feeling of warmth and at home?

147 responses

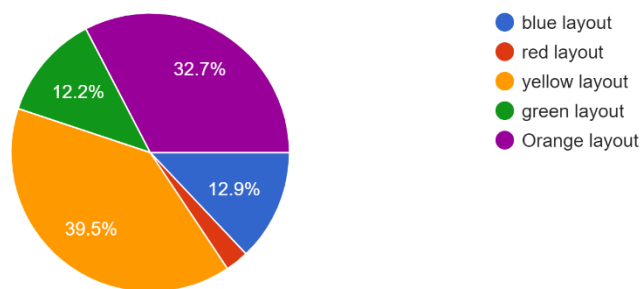


Figure 25. Designs that give shoppers a feeling of warmth and at home.

As can clearly be seen from figure 25, yellow stands out as a color representing warmness and friendliness of a supermarket, with 58 respondents (39.5%) choosing this when asked to pick a warm and welcoming design. From a wider picture, warmer color is also a choice color for warm designs, as the close second for yellow was orange, at a 32.7% pick percentage.

3.3.8 Hypothesis 7

Which of these sales advertisement makes you think of a high-value product?

147 responses

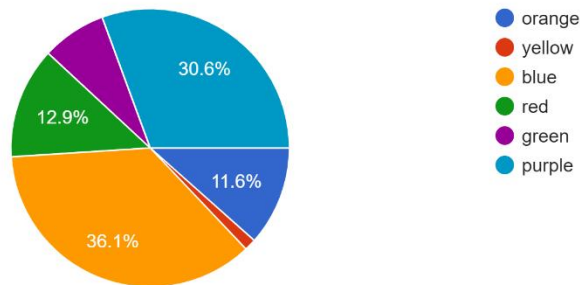


Figure 26. Sales advertisements that makes the shoppers think of a high-value product.

From figure 26, it is quite clear that purple was not the color that reminds people of a high-value product. The color that took the central stage for this aspect was blue, at 36.1%, whereas only 30.6% picked purple. Another noteworthy point in this figure is that all of the under-performers were warm colors. This is indicative of the fact that warm colors such as red or orange are not usually attributed to high-value in terms of price tag and product design.

3.4 Discussion

It is quite apparent from the conduction and analysis of the survey that a lot of the initial hypotheses were found to be, in fact, correct. The only outlier to this is hypothesis 7, as purple was, in fact, not the color most associated with high quality. However, it was, in fact, blue that took the top spot for most chosen color in this category. Apart from this single outlier, most of the remaining hypotheses were strongly reinforced through the survey.

The first point to merit discussion is the fact that around 83.3% of the respondents reported that they notice the shelf, price tags, and floor of the supermarket when shopping for grocery. This is an instrumental piece of information as it shows that more than 8 out of 10 customers take notice of these 3 areas of the store, which makes these 3 areas ideal for implementing subliminal designs.

The second point for in-depth discussion would be the fact that warm colors are perceived to be warmer, and generate a homy feeling for shoppers, which is truer here in Finland, as was illustrated in the survey, with 72.2% of shoppers choosing either yellow or orange store designs as a representation of a warmer and friendlier store. A cultural aspect could also be explored here for a more detailed analysis, as the Nordic cultures, where the Winter is 6 months long, can have a part to play in this favor of the colors yellow and orange, as they are quite reminiscent of warm fire and the summer sun.

The third talking-point of the study is how much green is attributed to healthy food, healthy eating, and environmentally friendly items. This can be a good application for the Finnish grocery market, as the Finnish shoppers have shown a preference for eco-friendly and healthy alternatives during their shopping trips as was illustrated in figures 10 and 11. This is a good exploit for this increasingly environment and health-conscious population of shoppers.

The fourth key point to note from the research is that red and other warm colors are very likely to cause an impulse purchase, as was mentioned and clarified in hypothesis 2. However, as mentioned in the same section, this distinction can come down to other situational and region aspects, such as the aforementioned fact that the 3 most picked colors were also the 3 most prevalent colors of price tags here in the region of Finland, which could be a contributing factor outside of color.

The fifth take-away from this research is how color preference can affect customers' shopping duration. As can be seen from figures 18 and 19, shoppers who like blue are much more likely to shop for an averagely longer span of time than those who favoured red. This is only in terms of preference, and it is important to note that further study into this area is needed to confirm the connection. It is also a good reminder that future studies should take into account how blue and red can extend the customer's stay through a more controlled research process.

The sixth and final point to take note of is that considerate shoppers, or those that are self-reporting a low frequency of off-the-list purchases (1-4 on the evaluation scale) are much more likely to pick a blue-colored product, while the opposite is

true for those that are impulsive in nature (7-10 on the evaluation scale), who will be much more likely to pick a red-labelled package. This is quite telling, and the data was very clear on this point. This means that red and other warm-colored products are much more attractive to impulsive buyers. This means products with this target customer groups in mind, i.e. items on sales, cheap, and miscellaneous items, should, when possible, use some form of warm colors in their packaging. The reverse, however, rings true for blue, as it has been proven to be more attractive to more considerate customers. This, along with the fact that blue has also been proven by this research to be associated with high-value items, make it ideal for targeting more calm customers, and to sell items that naturally requires more decision-making, such as shampoo or razors.

Apart from these key takeaways, further examinations should be made into the topic itself, as well as the research conducted in this thesis, as some parts of the study were not 100% reliable, due to the abundance of variables that could not be accounted for given the scope and the circumstances in which the survey was conducted. These variables that adversely impacts the research's reliability will be disclosed in section 3.4.1. below.

3.4.1 Limitations, transparency and recommendations

The sample pool is still relatively small for the subject matter (only 147 participants in total), and may not accurately represent the actual demographic and preference of young customers in Finland as a whole.

The survey did not take into account the social and cultural aspect of the participants, as customers of all nationalities are welcome to join. This will be a wild variable and will contribute to lower the reliability of the research.

The survey was conducted in English, and was thus posted on mainly English-speaking Facebook groups. This means that the survey may have missed out on a large number of relevant potential participants had it been available in more languages. Should future studies be conducted in this same topic area, more attention needs to be paid to translate the questions into more languages so as to be more inclusive.

Although the pictures taken for this survey were carefully chosen. However, due to the limitations of the COVID-19 pandemic, the pictures and images have been limited to a few supermarkets in Lappeenranta. Many other pictures have also been collected and carefully sorted from the Internet.

Despite the good results, the survey can also be subject to a host of possible errors, which are either very hard to control as they are typical characteristics of online surveys, or are merely limitations in technology or funding and support from supermarkets.

The first major flaw that can be found with this research is that not all of the images used for section 2 of the questionnaire were of equal quality. Although all of these images were taken from specifically designed store, the aspect of personal taste will always be a looming threat to the accuracy of these types of image-based questions. As mentioned in the discussion section, some discrepancies and bias could be found in some of the question, as some pictures were favored more than others, and it seems color is not the only factor at play for this bias. The only real and practical solution for this issue is through the use of control stores, where nothing else is changed other than the colors of the shelves, walls, floors, and price tags. This recommendation should be taken in future studies, as it can ensure the removal of an otherwise difficult variable that can affect accuracy.

The second major flaw of this study is that the regional aspects that was missing from the research, where the traditional colors of price tags are usually set for a certain region. For example, it is very rare to find promotional price tags with the purple color, or green color. This is why some respondents may feel that these are unnatural and will opt, instead, for more traditional price tag colors like red, orange, blue and neutral white. This can be an explanation for the low percentage of picks for these price tag colors.

The third major flaw that could be had with this type of survey is the factor of personal taste, which is a subjective issue and very hard to weed out. Some respondents when asked which store designs give them a feeling of calmness, however, may be choosing the design simply because they find it better to their

taste, and their choice did not revolve around color. This issue can also be easily fixed in the same manner as the first flaw, which is through the use of a singular design with only different colors.

Finally, one last challenge looms over the entire study, which is the aspect of how the survey was conducted. Due to a lacking of funding and support, it was not possible for the survey to be conducted by physical means. This, of course, opens up room for errors regarding data transfer, data extraction, and difficulties in visualization for the respondents. It also makes it virtually impossible to control the respondent demographic and backgrounds, which is the base upon which this thesis' problematic pyramid is built. The study would be much more reliable had it been conducted by sending the specifically chosen participants into physical stores, where the effects of these colors can play out in practice, rather than through an image. Further research is recommended for more reliability and applicability in the final results.

4 Conclusion

The topic of color has been an important aspect of business and marketing. Color has been a crucial part of marketing and product appearance ever since the dawn of commerce. However, the actual impact of color has only been studied quantitatively in recent times, and the effects of individual colors and color hues have not been adequately researched, especially in the field of grocery retail in the Nordic regions.

This thesis was formulated with an aim to clarify these effects and connections, and also to act as a spring board for future studies into this topic area, and explore more diverse angles that this thesis and its subsequent research were not able to elaborate upon in detail, for instance the elements of culture, regions, design language, personal preferences and customer backgrounds.

With that being said, the study did manage to paint a clear picture of how these connections play out, and was able to suggest a link between color and customers' choices in the small-scale survey. The findings can be highlighted as follows:

To begin with, the Finnish young shoppers are relatively health and eco-conscious (58.5% rated at a 6 and higher), and prefer healthy and environmentally friendly solutions. Furthermore, Green is the color most associated with healthy eating and eco-friendliness (at 49%), which, given the previous point on young Finnish shoppers' mentality, is a good exploit for many brands and supermarket chains, meaning using green in the store and shelf designs will be mostly beneficial.

Additionally, Shelf, price tags, and floors are the 3 areas most respondents (83.3%) agree that they notice the most when shopping, and that shoppers who answered the survey rated color's effects on their shopping choice, as well as their color awareness when shopping at a high score (63.9% for color awareness, and 72.8% for color shopping impact), making these areas ideal for key design features.

What's more, blue is the color most associated with high-value items. Meanwhile red is more inducive of impulse purchases, whereas blue exerts a more calming effect on shoppers.

Finally, the results also showed that considerate shoppers tend to choose blue breakfast cereal boxes, and impulse buyers tend to lean more on red breakfast boxes. It is also good to note that buyers who chose the red cereal box tend to buy items not on their shopping lists more often, and stayed in the store for an averagely longer span of time than those who opted for the blue box.

These findings are quite telling, and reinforced past publications on the subject of color and its effects on the choices made by shoppers in the grocery sector. It is important that more research of this kind is conducted so as to shed more light on the issue and paint a better picture of this instrumental subliminal messaging tool of the grocery marketing business. After all, it is wise to make the most out of the color dimension as it may bring about better sales and enhance shopper experience, especially in such a stagnant and streamline industry as the grocery retail sector.

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Appendices

Appendix 1: Survey on the effects of colors on the young consumers' decision-making process in the Finnish grocery retail market.

Section 1 (Q.1-8):

Q. 1: How often do you go grocery shopping?

Option 1: Everyday

Option 2: 2-4 days

Option 3: Once a week

Option 4: Once a month

Q.2: How much money do you spend a month on groceries? (optional answer)

Option 1: 0%-25% of monthly expenditures

Option 2: 26%-50% of monthly expenditure

Option 3: 51%-100% of monthly expenditures

Q.3: How would you rate these supermarkets in terms of preference?

	1	2	3	4	5	Never visited
K-market						
K-citymarket						
K-supermarket						
S-market						
PRISMA						

Lidl							
Alepa							

Q.4: Do you usually shop with a groceries list?

Option 1: Yes

Option 2: No

Option 3: Maybe

Q.5: How often do you buy something that is not in your groceries list?

never	1	2	3	4	5	6	7	8	9	10	All the time
-------	---	---	---	---	---	---	---	---	---	----	--------------

Q.6: How much time do you usually spend on each grocery shopping trip?

Option 1: 5-15 minutes

Option 2: 15-30 minutes

Option 3: 30 minutes to 1 hour

Option 4: over 1 hour

Q.7: How much would healthiness influence your shopping choices?

I don't care, as long as it's cheap	1	2	3	4	5	6	7	8	9	10	I care about my health. I never buy anything that's not organic
-------------------------------------	---	---	---	---	---	---	---	---	---	----	---

Q.8: Do you often think about the eco-friendliness of an item when shopping?

Never	1	2	3	4	5	6	7	8	9	10	always. I am an environment lover
-------	---	---	---	---	---	---	---	---	---	----	-----------------------------------

Q.9. How much attention do you pay to the store's interior designs when shopping?

Option 1: I never care about the designs.

Option 2: Just the shelf and price tags.

Option 3: Shelf, price tags, and floor.

Option 4: Everything about the designs bother me, and I never return to a supermarket with a dull design.

Q.10. How much attention do you pay to the colors of objects around you when shopping?

none	1	2	3	4	5	6	7	8	9	10	I always pay attention
------	---	---	---	---	---	---	---	---	---	----	------------------------

Q.11. How much do you think color affects your shopping decisions?

None	1	2	3	4	5	6	7	8	9	10	A lot
------	---	---	---	---	---	---	---	---	---	----	-------

Section 2 (Q.12-18):

Q.12: Which of these sales advertisement makes you want to purchase the product immediately?

Option 1:



Option 2:



Option 3:



Option 4:



Option 5:



Option 6:



Q.13: Which of these sales advertisement makes you think of a high-value product?

Option 1:



Option 2:



Option 3:



Option 4:



Option 5:



Option 6:



Q.14: Which of these store designs give you a feeling of warmth and at home?

Option 1: Blue layout



Option 2: Red layout



Option 3: Yellow layout



Option 4: Green layout



Option 5: Orange layout



Q.15: Which of these store designs give you a feeling of calmness?

Option 1: Blue layout



Option 2: Red layout



Option 3: Yellow layout



Option 4: Green layout



Option 5: Orange layout



Q.16: Which of these store designs give you a feeling of urgency?

Option 1: Blue layout



Option 2: Red layout



Option 3: Yellow layout



Option 4: Green layout



Option 5: Orange layout



Q.17: Which of these store designs give you a feeling of healthy eating?

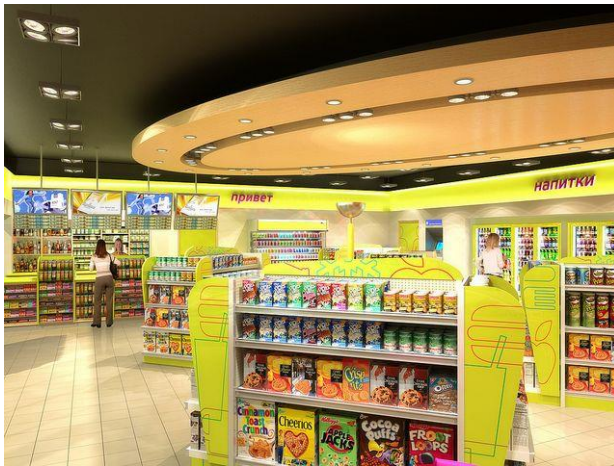
Option 1: Blue layout



Option 2: Red layout



Option 3: Yellow layout



Option 4: Green layout



Option 5: Orange layout



Q.18: Which of these breakfast foods attracts your attention the most?

Option 1:



Option 2:



Option 3:



Option 4:

