

## THE INFLUENCE OF COLOURS ON THE PURCHASE DECISION MAKING PROCESS WHEN DEVELOPING SUSTAINABLE PRODUCTS

Conference paper

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### **Abstract**

Since ancient times human beings have been surrounded by colours and their influences on every aspect of their daily life. Consciously or subconsciously they have used colours to communicate with each other, to project the image of themselves to the others or in order to decorate their environment, to feed themselves and to produce the general feeling of comfort.

The aim was to carry out consumer behaviour research on a random sample of 200 respondents about the influence of colours on the decision making process when purchasing products based on sustainable development. We also wanted to gain an insight into how much the meaning of colours influences personalities and the nature of stimuli. We looked into the VALS segmentation and the notions of “self-expression” and “self-image” through the impact of colours. Then we placed it in the context of the development of a sustainable product, i.e. in what way a colour in the product development process, for example packaging, influences the development of a sustainable product and the perception and attitudes in the purchasing decision of such products on the market. With this in mind it is essential to make the potential client feel pleasant and relaxed when entering a shop to buy a sustainable product as opposed to creating a feeling of anxiety or irritation.

**Purpose:** The aim of this work derives from the thesis that colours influence the purchasing decision-making process and that women have a better perception of colour in the process of consumer behaviour.

**Design:** Special attention is given to the influence of colours when purchasing sustainable ecological food products. Since sustainable development is nowadays a global trend it was our intention to establish a correlation between colours and sustainable development.

**Methodology:** The research was carried out as a combination of web survey and ‘face to face’ interaction (ratio 70:30) on a relevant sample of 200 respondents; women accounted for 60%, and men 40% of respondents, 18 to 55 years of age.

The aim of the research was to find out consumer behaviour related to the influence of colour in the purchasing decision-making process about products based on sustainable development.

**Approach:** There is an approach with which we prove the thesis that colours hold a high position in the value system when making a purchasing decision.

**Findings:** There is a problem that consumers when buying food products with characteristics of sustainability, apart from products’ eco component also look for a stamp of traditionalism.

**Originality:** The originality of the research model is reflected in the fact that the research was based on the influence of colours when purchasing food products, which unlike conventional products have the characteristics of sustainability.

**Keywords** colour, purchasing decision, sustainable development, self-expression, self-image, food products

## 1. INTRODUCTION

The physical world in the human environment absorbs certain parts of sunlight while it rejects the others, which leads to the experience of different colours. Human beings can differentiate around 7 500 00 colours and nuances of colour.<sup>1</sup> Colours are one of the factors people don't think much about and are not aware of their significance on the psychological level. Current psychology in one of its fields deals exclusively with studying colours and their effect on individuals or groups. Many elements need to come together in order for a colour to appeal to an individual, for instance, a person's mood, preferences, style, culture they live in, religion, the self-image they want to project etc.

Since ancient times human beings have been surrounded by colours and their influences on every aspect of their daily life. Consciously or subconsciously they have used colours to communicate with each other, to project the image of themselves to others or to decorate their environment in order to achieve the sense of comfort.

Both psychology and marketing study those elements because of their significant influence on human beings, i.e. the potential customer. Marketing experts give a lot of attention to colours in their research and in the development of marketing strategies for a very simple reason – colours have a large influence on potential customers. A right colour selection for a product to be launched onto the market and offered to a specific target audience is of utmost importance since it is one of the elements that can result in a product's success or failure. It is a well-known fact that certain brands owe their global popularity to a careful selection of colours in the design of their widely recognised logos. In order to plant the overall impression of a product or an outlet into consumers' consciousness colours should not be disregarded. It is of great importance to make the client feel the sense of pleasure and relaxation when they walk into a shop and not create the feeling of anxiety or irritation. Colours help create a positive atmosphere which can result in a purchase as well as in attracting them to return in the future, which also should not be disregarded.

## 2. ABOUT COLOURS IN GENERAL

The history of the science of colours goes back to the times of Greek philosophers Plato and Aristotle. The scientific approach continues to the times of Newton, Helmholtz, Hering, Munsell, Land and Ostwald who lived in the second half of the 19<sup>th</sup> and the second half of the 20<sup>th</sup> centuries and they were the ones to set the foundations of the comprehension and understanding of the colour phenomenon<sup>2</sup> we have today.

Later research showed that different colours can be created by combining light. For instance, if red and yellow lights are mixed orange colour is created.<sup>3</sup>

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<sup>1</sup> Tanhofer, N.: About Colour, Novi Liber, Zagreb, 2000, p. 6.

<sup>2</sup> Interdisciplinarnost barve, I. Del v znanosti, Društvo koloristov Slovenije, Maribor, 2001.

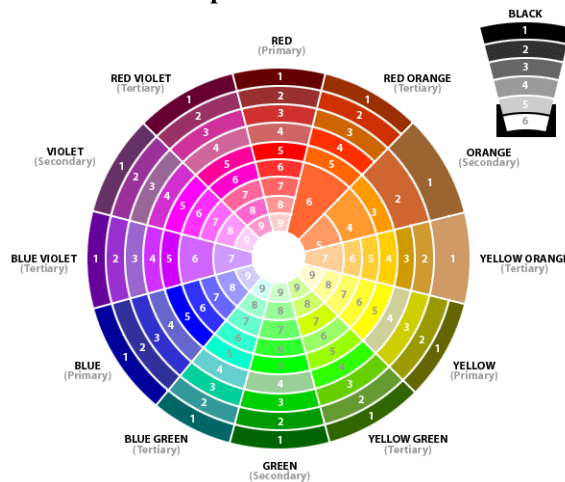
<sup>3</sup> Cherry, Kendra: "Color psychology",  
<http://psychology.about.com/od/sensationandperception/a/colorpsych.htm>, (02.10. 2013)

Despite the influence of colour through history, psychologists increasingly deal with the question of how the colours influence human beings. It has been proven that colours are important because of their effect on the mood and that 87% of all perceptive impressions are received through colours. However, each individual person responds to different colour combinations depending on the light, mood etc.<sup>4</sup>

The psychology of colours deals with discovering the impact of each individual colour on different people and the emotional state they provoke in them. This particular field of psychology is very complex since if a person shows a strong adverse emotion towards a particular colour it is often based on a strong psychological reason closely related to their personality. By closely studying each colour, characteristics of personality can be discovered.<sup>5</sup> Colours that cannot be obtained by mixing various pigments are known as basic colours, and they are red, blue and yellow. Secondary colours created by mixing two primary colours such as orange, violet and green colours.<sup>6</sup>

Despite the fact that the experience of a particular colour is very individual, there are two types of colour that carry universal meaning. Red, orange and yellow colours belong to the red spectrum of colours. These colours are warm colours that provoke emotions varying from warmth and comfort to anger and hostility. Blue, violet and green are on the blue side of the spectrum and are called cold colours. They predominantly provoke the feeling of peace, however they can also lead to the feeling of sadness or indifference.<sup>7</sup>

Picture 1: Colour Spectrum



Source:<http://www.rewaj.com/wp-content/uploads/2010/10/color-wheel.gif>

<sup>4</sup> Helios: «Influence of Colour on the Mood“, <http://colours.helios.si/cro/dodatne-informacije/boje-i-njihov-utjecaj-na-prostor/utjecaj-boja-na-raspolozenje/>(08.10.2013)

<sup>5</sup> Kačapor, Fatima: «Psychology of Colours»“, <http://urbanzurnal.com/2011/02/03/psihologija-boja/> (08.10.2013)

<sup>6</sup> Chiazzari, Suzy: «Decorate your home “, Večernji posebni proizvodi d.o.o., Zagreb, 2009, p. 12.

<sup>7</sup> Cherry, Kendra:“Color psychology“, <http://psychology.about.com/od/sensationandperception/a/colorpsych.htm>,(02.10..2013.)

### 3. COLOURS AND SUSTAINABLE PRODUCT

Positioning shows the way a product meets the needs of consumers, i.e. it is the image that the consumer has about a product, and very often it is even more important than the product specifications. Nowadays it is very important to create a recognisable product image since it is the result of successful positioning strategy.<sup>8</sup>

A colour is the first thing to catch a consumer's eye, and subconsciously it will be the first to make an impression about the product. The selection of the target market and target consumer, but also the selection of the right recognisable colour for the product is of utmost importance for successful product positioning. The first, denotative reading of a product is the foundation while the colour represents the background. Product image is constructed in such a way that it is clear to a large number of people, and its colours, whether they are dynamic, warm, multi-coloured, peaceful or cold describe the company's attitude to the product itself.

Not all colour combinations work in the same way for all industries. For instance, numerous fast food restaurants such as McDonald's, Burger King, Pizza Hut and Subway use warm colours – red, orange, yellow or green. The reason you will not see many blues or violets is that people eat more in rooms painted in warm colours. The second reason is that red and orange have become synonyms for the speed and lower price of products. The logo colour is the very first thing consumers notice and the basis on which they make assumptions about the company as well as the quality of its products or services.<sup>9</sup>

The aim of every research process, and in the end taking a product to the market, is successful positioning on the market. It refers especially to small businesses but large companies which base their operations on sustainable development and are trying to differentiate themselves and create associations in customers' minds. Sustainable development is a notion that does not only refer to the environment and its protection. Namely, it is a notion that includes the present and the past as well as the sustainability of the human kind in the future through caring about the present. Therefore, we can define *Sustainability* (Eng. Sustainability, German Die Nachhaltigkeit, French durabilité) as the ability to sustain a function or a process permanently. In nature sustainability is best represented by a perfect cycle of matter and energy. Nature knows no loss or waste, all matter and energy renew themselves and return to the process, and it continues endlessly.<sup>10</sup>

Regarding customer behaviour and the decision to buy a "green" product, the research shows that the green market has been growing by several million EUR annually and that the consumers have accepted the concept. But further it has to be stated that such growth does not guarantee success in this area. When establishing the marketing of a service we cannot rely just on a green slogan without putting the emphasis on other

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<sup>8</sup> Schiffman, L., Kanuk, L. L.: "Consumer Behaviour", Mate, Zagreb, 2004, p. 141.

<sup>9</sup> Tuber, Jeremy: "The hidden secret on logo colors, and how they affect your consumer", <http://ezinearticles.com/?The-Hidden-Secret-on-Logo-Colors,-and-How-They-Affect-Your-Customers&id=124569>, 2006 (02.10.2013)

<sup>10</sup> Bačun, D., Omazić, A., Matešić, M.: Lexicon of Sustainable Development, Zagreb, 2012, p.198.

characteristics that imply the product's quality and its appeal to customers. Apart from the product being "green", i.e. being defined by this colour, it needs to provide the customer with more reasons to be selected. For example, it can be assumed that traditionalism holds this importance and it helps to implement the new, sustainable and ecological. In this way the market is adjusted and new products are more readily accepted. It is believed that many consumers are convinced that ecological does not necessarily mean better and consequently they base the purchasing decision on sustainability of traditional products. Therefore here, the ecological product is expanded to the sustainable product with a component of tradition (e.g. prosciutto from Drniš, Hib from Vis, etc.)

Nowadays in the production of food products the basic gamma of colours of the landscape: substrate, soil, vegetation, has to be added to the green colour. Polychromy and colourful aspects of space give variety to the impression of monotonous monochromy. The occasional appearance of daylight lighting (sunrise or sunset) or the coloured aspect of seasons (spring bloom, summer ripening or autumn richness of colours) brings colour to monochromy.<sup>11</sup>

According to the above mentioned it is obvious that apart from the green colour, other colours too (e.g. brown – the colour of the soil, yellow – the colour of the sun, red- the colour of some fruit...) can have an influence on customers' purchasing decision, especially through packaging. The colours of the packaging attract attention, create aesthetic experience and develop communication.<sup>12</sup>

#### **4. PERSONALITY AND UNDERSTANDING CONSUMERS THROUGH THE PERCEPTION OF COLOURS**

Personality is an important segment for sellers because it helps them understand the consumer and successfully segment and market their product to the one who will positively respond to it.<sup>13</sup> Personality is defined as all characteristics that can explain consistent behaviour patterns, i.e. differences in behaviour between people and they depend on: age, gender, race, income, level of education, marital status, number of children, etc. Personality includes innate instincts, learned motives and acquired experiences.<sup>14</sup>

The main characteristics of personality are maintaining individual differences consistency and permanence and that it cannot be changed. The production of sustainable food products is based on these very postulates. The notion of personality is useful because it gives the possibility to divide consumers into groups depending on their characteristics and later at the segmentation of the target group. Depending on the dominant characteristics of personality it is possible to offer the same product to

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<sup>11</sup> Jurković, S. Theory of Colours – colours in nature, *Agronomski glasnik* 3-5/2003

<sup>12</sup> Kauppinen-Raisainen, H., Luomala, H.T. Exploring consumers product-specific colour meanings, *An International Journal* Vol.13No.3,2010 pp. 287-306.

<sup>13</sup> Schiffman, L., Kanuk, L.L.: "Consumer Behaviour", Mate, Zagreb, 2004, pp. 94-95.

<sup>14</sup> Foxall, Gordon R., Goldsmith, Ronald E., Brown, Stephen: "Consumer Psychology for Marketing", naklada Slap, Zagreb, 2007, pp. 155 – 157.

different people.<sup>15</sup> Using colours in order to influence consumers is a usual occurrence nowadays. Focusing on their mood, purchasing etc. the consumer can feel that he/she has more energy in one outlet than the other; he/she can feel more confident or comfortable. People perceive and react to certain colours and the question is whether they prefer cold or warm colours. For instance, it can be assumed that an energetic person will prefer the red colour to the blue one, which means that they will accept a red product more readily since it will provoke a positive emotion.

## 5. COGNITIVE PERSONALITY FACTORS AND THE NATURE OF STIMULUS

Consumer behaviour is closely connected to psychology because it is extremely important to know how to respond to consumers' needs and wants. Personality as such strongly influence consumers and their selection of products. The today's world is a dynamic market on which small and large changes happen daily that have a great influence on consumers, which in turn requires adjustments on a daily basis. The interaction of factors such as emotions, cognition and the influence of the environment are intertwined factors that need to be viewed as a whole. The aim is to view all psychological aspects together in order to develop a successful marketing strategy.<sup>16</sup>

Cognitive personality factors influence consumer behaviour and the most important aspects of cognitive personality characteristics are: the need for cognition and visual opposed to verbal types. These two personality characteristics tell consumer researchers how the consumer will react to a specific advertising situation. The need for cognition connects consumers with the need to think; those with higher levels of the need are more likely to concentrate on the product description and details, while those with lower levels of the need are more likely to notice the secondary parts of advertisements such as the background etc. Visual types prefer visual advertisements while verbal types respond to the written types of advertisements.<sup>17</sup> Therefore, it can easily be concluded that colours have a great impact on the purchasing decision in visual types.

Every consumer is different in terms of personality, characteristics needs and wants, which in turn means that they react differently to products. In the same way, every colour has a different psychological influence, which can be seen.<sup>18</sup>

The colour red – increased self-confidence and strength, closer physical contact and increased energy levels to name a few positive aspects of the colour red, while on the other hand, its negative aspects are excitement, aggression, irritation and imposition. This colour increases adrenaline and energy levels but it can quickly turn to aggression

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<sup>15</sup> Milas, Goran: "Psychology of Marketing" : Target, Zagreb, 2007.

<sup>16</sup> Foxall, Gordon R., Goldsmith, Ronald E., Brown, Stephen: "Consumer Psychology for Marketing", naklada Slap, Zagreb, 2007, pp. 155.157.

<sup>17</sup> Schiffman, L., Kanuk, L.L.: "Consumer Behaviour", Mate, Zagreb, 2004, pp. 102-104.

<sup>18</sup> Jozić, Ivan: "How do personality characteristics influence product purchasing decision?" "<http://www.profitiraj.hr/marketing-i-prodaja/kako-osobine-licnosti-utjecu-na-odluke-o-kupnji-proizvoda/>", (20.10.2013)

which makes it unsuitable for unstable personalities. It is a good choice for relieving apathy, depression and fatigue.<sup>19</sup> Red clothing items are not a good choice in the situations of negotiating or conflict.<sup>20</sup>

The colour blue – clear, fresh, transparent, quiet, peaceful. This colour brings peace, fosters mind activity, concentration, directs the introvert. Its negative sides are that it gives off the impression of cold and stimulates depression.<sup>21</sup> It is proven that people working in blue spaces are more productive. The colour blue is used in weight loss treatments as there are very few blue foods but also because we instinctively associate it with poison and decay. Additionally, this colour reduces body temperature and pulse.<sup>22</sup>

It is recommended to wear blue clothing garments to job interviews as it creates the feeling of commitment.<sup>23</sup>

The colour yellow – refreshes, activates, alleviates fear, keeps awake, speeds up metabolism, stimulates concentration and mobility, communicativeness and has a positive effect on the mood.<sup>24</sup> It can have a stimulating effect on lazy people, brings many ideas, stimulates creativity and the feeling of relaxation. People who like yellow are communicative, dominant and kind.<sup>25</sup>

Its downside is that it can cause people in yellow spaces to lose their temper more easily and babies tend to cry more.<sup>26</sup>

The colour green – is known as a colour of health and balance; the colour of peace, restfulness and contemplation.<sup>27</sup>

Green provides stability, which can be extremely helpful to people prone to mood swings. Its calming effect positively influences nervous and anxious people. It also increases energy levels and has an effect on dominant people because it is associated with power.<sup>28</sup>

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<sup>19</sup> Folmar, Klausbernd: "The big book oabout cokours ", Laguna, Beograd, 2011, pp. 144-146.

<sup>20</sup> Jonhson, David: "Color psychology – do different colors affect your mood",  
<http://www.infoplease.com/spot/colors1.html>, 2007 (02.10.2013)

<sup>21</sup> Folmar, Klausbernd: "The big book oabout cokours ", Laguna, Beograd, 2011, p. 90.

<sup>22</sup> Cherry, Kendra: "Color psychology: blue",  
[http://psychology.about.com/od/sensationandperception/a/color\\_blue.htm](http://psychology.about.com/od/sensationandperception/a/color_blue.htm),  
(02.10.2013)

<sup>23</sup> Jonhson, David: „Color psychology – do different colors affect your mood“,  
<http://www.infoplease.com/spot/colors1.html>, 2007. (02.10.2013.)

<sup>24</sup> Helios: "The influence of colour on the mood " [http://colours.helios.si/cro/dodatne-informacije/boje-i-njihov-utjecaj-na-prostor/utjecaj-boja-na-raspolozenje/\(08.10.2013\)](http://colours.helios.si/cro/dodatne-informacije/boje-i-njihov-utjecaj-na-prostor/utjecaj-boja-na-raspolozenje/(08.10.2013))

<sup>25</sup> Folmar, Klausbernd: "The big book oabout cokours ", Laguna, Beograd, 2011, pp. 48-50.

<sup>26</sup> Jonhson, David: „Color psychology – do different colors affect your mood“,  
<http://www.infoplease.com/spot/colors1.html>, 2007. (02.10.2013.)

<sup>27</sup> Helios: "The influence of colour on the mood ", [http://colours.helios.si/cro/dodatne-informacije/boje-i-njihov-utjecaj-na-prostor/utjecaj-boja-na-raspolozenje/\(08.10.2013\)](http://colours.helios.si/cro/dodatne-informacije/boje-i-njihov-utjecaj-na-prostor/utjecaj-boja-na-raspolozenje/(08.10.2013))

<sup>28</sup> Folmar, Klausbernd: "The big book oabout cokours ", Laguna, Beograd, 2011, pp. 228-230.

Research has shown that the colour green can improve reading skills and that some students can improve the speed and comprehension if they use green while reading.<sup>29</sup>

The colour orange – creates the feeling of excitement, enthusiasm happiness, attracts attention, eroticism, warmth and self-confidence. Because of its playfulness and warmth it can motivate people. It is very well accepted by emotional people because it arouses positive feelings. It is used in the treatment of depression and anorexia. This colour is recommended if a person wants to relax and stabilise emotions after exhausting physical and psychological work.<sup>30</sup>

The colour violet – the influence of this colour very much depends on its shades. In general, it creates the feeling of anxiety, but for instance the dark blue violet attracts and has a calming effect while the light red violet excites and seems intrusive. Introverted types of people like this colour because of the feeling of internal tension while the people who like the lighter shades are usually very sensitive and are considered aesthetes. It is associated with wisdom and spirituality.<sup>31</sup>

The colour black – seems depressing, creates the feeling of insecurity but it also increases self-confidence and creates the feeling of security.<sup>32</sup>

The colour pink – research shows that the feeling of anger can temporarily be reduced in a pink room. In some prisons a certain shade of pink is used to calm prisoners. This is the colour of consolation and reminiscent of childhood.<sup>33</sup>

The colour grey – the colour that increases creativity.<sup>34</sup>

The colour brown – it creates the feeling of wholeness, stability, reliability and connection with nature.<sup>35</sup> It can create the feeling of sadness and isolation.<sup>36</sup>

The colour white – people predominantly experience this colour as clean, transparent and bright colour, but a great number of them do not feel well where the white colour dominates. It gives of the impression of innocence but aggression as well, stimulates intellect and expands.<sup>37</sup>

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<sup>29</sup> Cherry, Kendra: „Color psychology: green“,

[http://psychology.about.com/od/sensationandperception/a/color\\_green.htm](http://psychology.about.com/od/sensationandperception/a/color_green.htm), (02.10.2013)

<sup>30</sup> Folmar, Klausbernd: „The big book oabout cokours“, Laguna, Beograd, 2011, p. 213.

<sup>31</sup> Folmar, Klausbernd: „The big book oabout cokours“, Laguna, Beograd, 2011, pp. 187-190.

<sup>32</sup> Folmar, Klausbernd: „The big book oabout cokours“, Laguna, Beograd, 2011, pp. 311-312.

<sup>33</sup> Cherry, Kendra: „Color psychology: pink“,

[http://psychology.about.com/od/sensationandperception/a/color\\_pink.htm](http://psychology.about.com/od/sensationandperception/a/color_pink.htm), (02.10.2013)

<sup>34</sup> „Choosing interior color“, <http://www.demesne.info/Improve-Your-Home/Choosing-Interior-Color.htm>, (02.10.2013)

<sup>35</sup> Smith, Kate: „Color: meaning, symbolism and psychology“, <http://www.squidoo.com/colorexpert>, (02.10.2013)

<sup>36</sup> Cherry, Kendra: „Color psychology: brown“,

[http://psychology.about.com/od/sensationandperception/a/color\\_brown.htm](http://psychology.about.com/od/sensationandperception/a/color_brown.htm), (02.10.2013)

<sup>37</sup> Folmar, Klausbernd: „The big book oabout cokours“, Laguna, Beograd, 2011, pp. 325-331.



The colour white helps us clear our thoughts, stimulates overcoming obstacles, and enables new beginnings. White coats in hospitals people associate with sterility.<sup>38</sup>

Each person responds differently to particular goods depending on the culture and tradition they belong to because each colour is in that case associated with different emotions, moods, symbolism and psychological influences. Social standing, gender, age, occupation, personal preferences, the environment, and emotional state influence a person's response as well.

## 6. VALS SEGMENTATION AND SELF-EXPRESSION AND THE SELF-IMAGE THROUGH THE INFLUENCE OF COLOURS

VALS is defined as a system of values and life styles and is explained through the classification of American population in eight segments. This classification helps explain consumer behaviour depending on the psychographic and demographic characteristics and it outlines a detailed profile of consumer personality characteristics. The size of each group expressed in percentage is given in the end. The research is carried out annually for the American and Japanese markets.<sup>39</sup>

Based on the consumer characteristics, eight VALS personality types are:<sup>40</sup>

**Survivors** – characterised by very low income, always loyal to the same brand of products, purchase at sales and collect coupons in order to obtain product at a reduced price, they buy products with a long life cycle and consequently never buy fashionably coloured products regardless of having faith in and being under a great influence of advertising.

**Motivated by ideals – Believers** – they buy products made by national producers, buy at sales, find it difficult to change habits, they show their loyalty when buying products made by national producers also when it comes to the influence of colours, which means they prefer a particular colour for a particular type of product and they always buy the same type of products of the same or similar colour, they spend above average time watching TV.

**Motivated by ideals – thinkers** – they are not interested in prestige or image, they are above average consumers of household products, they never associate a colour with a precise product, they like a broad spectrum of colours, they read a lot and different types of print publications, they tend to travel.

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<sup>38</sup> Smith, Kate: „Color: meaning, symbolism and psychology“, <http://www.squidoo.com/colorexper>, (02.10.2013)

<sup>39</sup> Schiffman, L., Kanuk, L.L.: „Consumer Behaviour“, Mate, Zagreb, 2004, pp. 51-57.

<sup>40</sup> Schiffman, L., Kanuk, L.L.: „Consumer Behaviour“, Mate, Zagreb, 2004, p. 55.

**Motivated by achievement – strivers** – they are aware of the importance of the image although they have limited resources, they take out loans and spend on clothing and personal care products, and they are susceptible to the influence of colours, especially the trendy ones and with which they can point out the importance of the image. When buying clothes they put a lot of importance on the symbolism of colours and their meaning.

**Motivated by achievement – achievers** – they are attracted to the top of the range products, premium quality and they have a characteristic colour they are attracted to for a precise product and they base their decision on it.

**Motivated by self-expression – makers** – they appreciate comfort, value and durability, they are not interested in luxury, they buy the necessary and especially products of timeless colours or the so-called 'practical' colours.

**Motivated by self-expression – experiencers** – they follow fashion and fashion trends, they spend a lot on going out and socialising, they buy without thinking and love trendy colours which stimulate them to action, they will not miss out on buying a well known fashionable brand, consequently they will certainly buy a bright yellow handbag if the colour is in.

**Innovators** – they are extremely high earners, and therefore they like sophisticated things, they are attracted to new products, new technologies, products of different colour, they rarely watch TV but read a lot, they are sceptical towards advertisers.

Each person has a self-image built through experience and development. The very person as well as the environment and tradition influence this image and it is connected with the characteristics, abilities, habits etc. When choosing a brand, the consumer often decides on the one it can relate to, i.e. the one that is closer to their self-image.<sup>41</sup>

When a person selects a colour they will wear their aim is to present themselves in a certain way and project an image of themselves to their environment. The selection depends upon how the person sees themselves, on their mood and with whom they communicate. Colours can make the person appear happy, relaxed, tired or anxious, but they can also have an instant effect on their mood. Men and woman mostly select different shades of the same colour. By selecting a particular colour the person demonstrates how they see themselves, but if the selected colour of clothing is wrong they can appear older, tired or younger and livelier. For that reason the fashion industry uses the so-called colour scenario, particular colours best suited for a consumer (autumn winter, spring, summer), a particular model of makeup and hair colour.

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<sup>41</sup> Schiffman, L., Kanuk, L.L.: "Consumer Behaviour", Mate, Zagreb, 2004, p. 110.

## **7. CONSUMER RESEARCH AND THE INFLUENCE OF COLOUR ON MAKING A PURCHASING DECISION**

### **7.1. Methodology and the objectives of research**

The aim of the research was to find out consumer behaviour related to the influence of colour in the purchasing decision-making process about products based on sustainable development. We have seen how much the meaning of colours influences personality types and the nature of stimuli. We have looked at VALS segmentation and the notion of self-expression and 'self-image' through the impact of colours in the context of sustainable products.

The research was carried out as a combination of web survey and 'face to face' interaction (ratio 70:30) on a relevant sample of 200 respondents; women accounted for 60%, and men 40% of respondents, 18 to 55 years of age. It is important to point out that this paper lists only one part of survey questions because of its length. The research was conducted in the period from September until October 2013. The questionnaire consisted of thirteen closed and one open question, which served the purpose of obtaining responses for the following specific objectives:

- Women experience colours more intensely than men
- The position of colour is high up in the purchasing decision when buying a sustainable food product.
- The colour of packaging is of great importance in the decision-making process when buying a sustainable food product.
- Apart from sustainability 'green' products should have the characteristics of traditional products

#### **7.1.1. Sample characteristics**

According to the occupation criteria 52.5% of respondents are employees in privately owned companies followed by 17.5% employees in state owned companies then students 12.5% and free lancers 10% and the retired 7.5%.

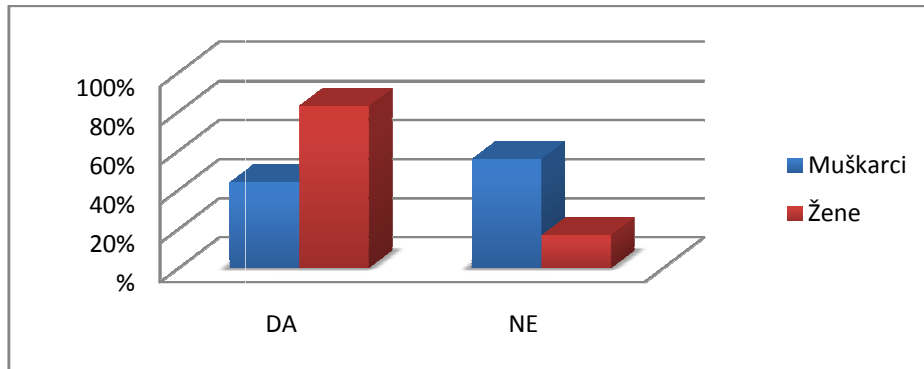
According to the age criteria, majority of respondents (34%) are in the older middle-aged group 45-55 years of age, followed by the younger age group (21%) aged 25-35. After that the youngest age group follows (14%) aged 18-25 and older age group aged 55-65 (22%) and finally, the retired 65+ age group (9%).

According to the education criteria, highly educated respondents account for 42%, in the second place are respondents with secondary school education 35%, doctors and academics account for 10% and only 5% of respondents have just primary education. The conclusion is that most of the respondents are highly educated.

More than 1/3 of respondents (34%) earn 6,001-9,000 HRK. 23% are in the income group 3,001-6,000 HRK. 20% are in the bellow 3,000 HRK group, while only 5% of respondents have income above 9,001 HRK.

## 7.2. Research results

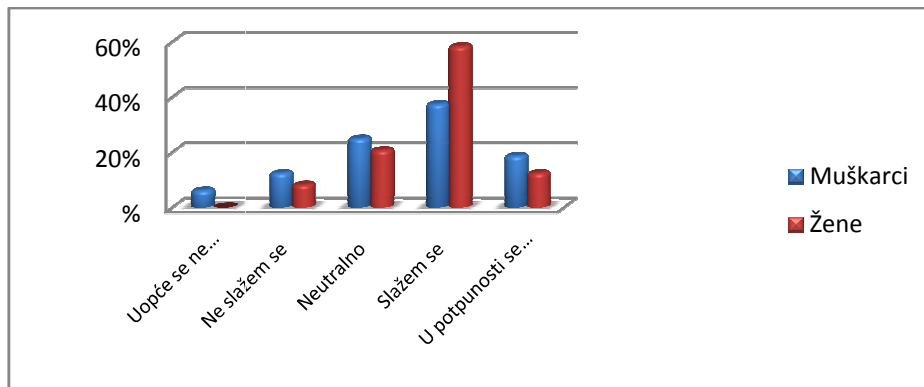
Graph 1 – The influence of colours when purchasing



Source: author's own work

To the question if they are inspired by the colour when purchasing, 83% of female respondents replied positively while 56% of male respondents said that the colour does not inspire them, which shows that women are much more sensitive to the situational factors when purchasing.

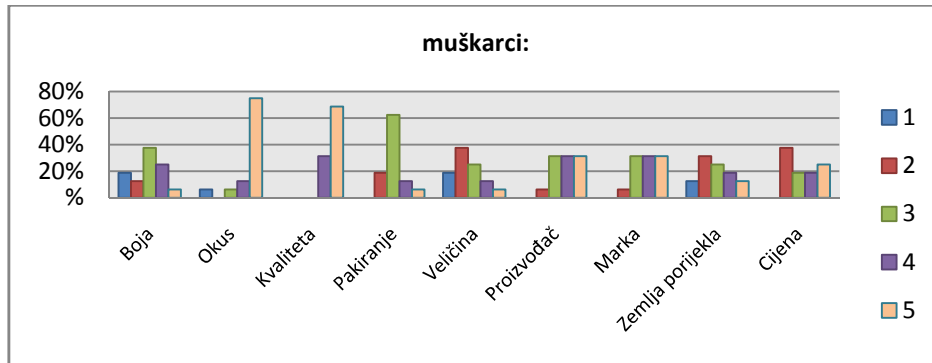
Graph 2 – The influence of colour on the daily mood



Source: author's own work

The response to the question whether the colour has an influence on their daily mood 71% of female respondents agreed, one fifth (21%) remained neutral while 8% disagreed. More than half male respondents (57%) agreed, 1/4 male respondents remained neutral and 1/5 disagreed, which proves that they are not fully aware how much the colour really influences them. Taking the results into consideration it can be concluded, as we have expected, that women are much more sensitive to the stimuli of colours. We have also proven that people tend to surround themselves with colours that appeal to them in order to influence their daily mood.

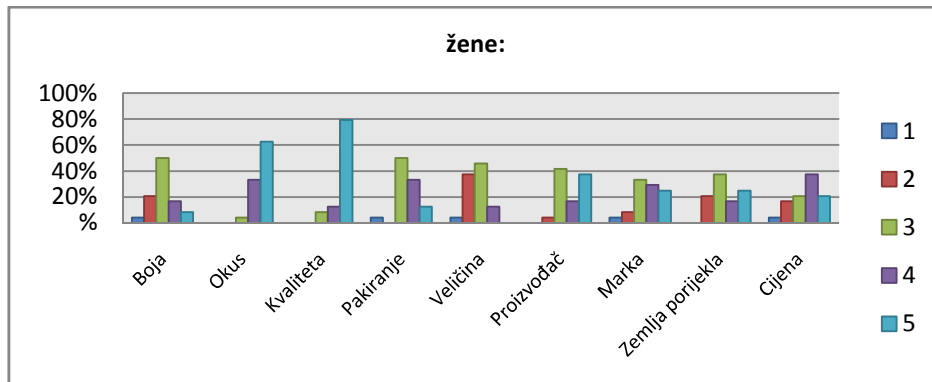
Graph 3 – Elements influencing men when buying food products



Source: author's own work

'Taste' is the element that 73% men awarded the highest grade, and 69% responded – 'quality'. 19% respondents graded 'colour' and 'size' as elements that influence purchasing food products quite a lot. However, a relatively high position of colour in the perception of a product graded by the male population is surprising.

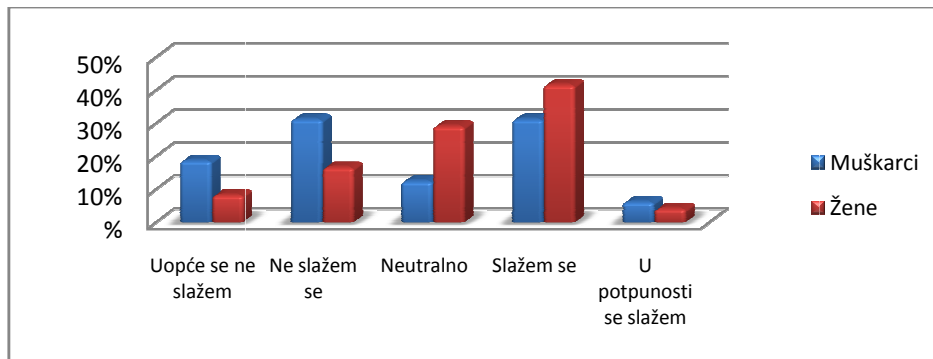
Graph 4 – Elements influencing men when buying food products



Source: author's own work

'Quality' is the element with the highest rating by 79% of female respondents, followed by 'taste' by rated by 63% and in the third place 'colour' as the element influencing women when making a purchasing decision. 'Packaging', 'size', 'brand' and 'price' were awarded the lowest rating by women.

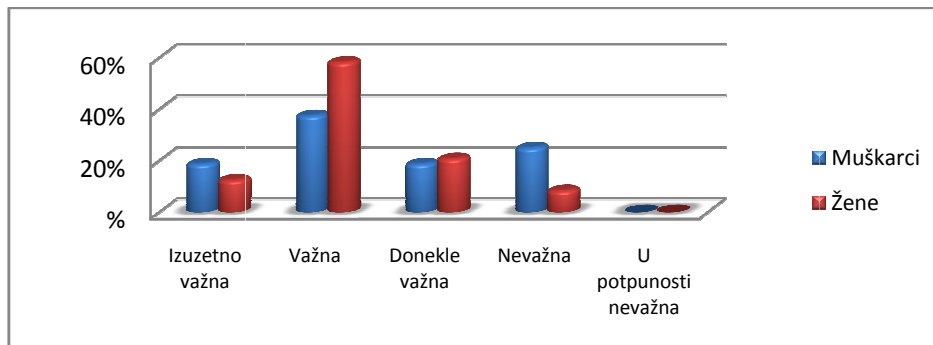
Graph 5 – **Do you agree with the statement: Each person has their colours and they have a significant influence on them.**



Source: author's own work

The results show that nearly half of female respondents (47%) think that people have their colours and that the significantly influence them while 17% disagrees with the statement. In male respondents the response to the statement is divided in three nearly equal parts. One third (31%) agrees with the statement, the same number disagrees (31%) while 19% remained neutral to the statement.

Graph 6 – **How important is the packaging when buying a product**

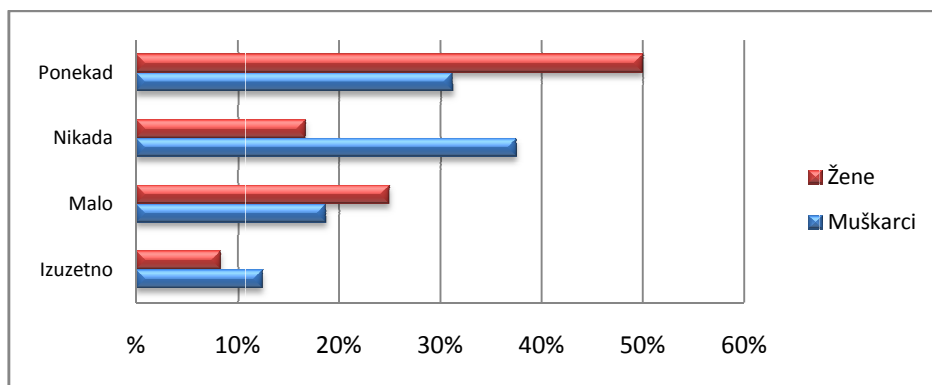


Source: author's own work

The majority of respondents of both genders feel that the colour of packaging is important when buying a product: 58% women and 48% men. The response that the colour of packaging is completely unimportant has been eliminated by both groups, which proves that the colour of packaging has a positive effect on the psychological state of respondents.

To the open question whether they can connect sustainable development, food products and traditionalism, most respondents replied it was a logical order and they listed examples they thought Croatia should be following, especially referring to the traditional production of smoked ham, cheese, fruit brandy, etc. Only a few of them stated that traditionalism should be combined with new advanced technologies in food production.

Graph 7 – Is there aversion to a product in the process of buying because of its colour



Source: author's own work

The results show that 38% male respondents have responded that there isn't a colour that puts them off, 31% sometimes feel aversion to a particular colour, 19% can be slightly put off by a colour and 13% stated that they have been extremely put off by a colour. The results for female respondents show that 50% can sometimes be put off by a colour, 20% answered slightly, 17% are never put off by a colour and 8% can be extremely put off.

### 7.3. Research conclusion

Research results based on the set objectives are as follows:

- Women have a better perception of colours than men and they definitely consider them more important (2/3 of them)
- But it is a surprising fact that nearly half male respondents tend to point out the importance of colours
- The colour took a relatively high third position as an element among the reasons to purchase a product, both among the male and female population, which proves the impact of visual stimuli in the purchasing decision. It is interesting to point out that the colour has been ranked much higher than the price in these very hard economic conditions.
- Half of the respondents of both sexes believe that the colour as an element has a significant influence in buying food products based on sustainability.
- It is important to point out that nearly all respondents (97% of them) feel that food products based on sustainability should have the component of traditionalism.

#### 7.4. Research limitations and recommendations

It should be pointed out that the research was carried out only in the city of Zagreb area and that in the future it would be good to research the influence of colours when making a purchasing decision about food products base on sustainability in the whole area of Croatia. It is important to stress that the models of production and development of food products in most cases occur outside of urban areas and cities therefore it would be very interesting and useful to see and compare results.

#### 8. CONCLUSION

Humans are surrounded by colours in their daily life and they have become a form of non-verbal communication, expression, attraction or aversion among them. Selecting fruit and vegetables based on sustainability can greatly influence the human psyche through the mood, for instance, or through creating various emotions.

Nowadays, there is mostly no direct communication between a potential customers and seller of a particular product or service. With this in mind the colour has become one of the first elements noticed by potential customers and which can attract or avert them. The colour projects an image of a product or service but also about the company, which creates the first impression, and if it is the wrong one the potential customer can be lost forever. It is especially true when it comes to ecological food products based on the principle of sustainability. According to this it is important to point out that when it comes to sustainability, which is an expanded group of ecological products, we have to consider the element of tradition which then significantly relates to colours, namely the so called natural colours, yellow, brown and red apart from the colour green. The selection of the right colour for the packaging of such product is of great importance since it can greatly help or ruin the sales.

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