# Repurchase intentions in a retail store - exploring the impact of colours 

Varga, Anja; Dlačić, Jasmina; Vujičić, Maja

Source / Izvornik: Ekonomski vjesnik : Review of Contemporary Entrepreneurship, Business, and Economic Issues, 2014, XXVII, 229-244

Journal article, Published version<br>Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:145:038108
Rights / Prava: Attribution-NonCommercial-NoDerivatives 4.0 International/Imenovanje-Nekomercijalno-Bez prerada 4.0 međunarodna

Download date / Datum preuzimanja: 2024-04-26


## Anja Varga

Mate Lovraka 5, 43280 Garešnica
anjavarga94@gmail.com
Jasmina Dlačić
University of Rijeka
Faculty of Economics
Ivana Filipovića 4, 51000 Rijeka
jasmina.dlacic@ri.t-com.hr
Phone: +38551355169

Maja Vujičić
University of Rijeka
Faculty of Economics
Ivana Filipovića 4, 51000 Rijeka
maja.vujicic@efri.hr
Phone: + 38551355117

UDK 366.12:339.372.2
Original scientific article
Received: July 21, 2014
Accepted for publishing: September 2, 2014

# REPURCHASE INTENTIONS IN A RETAIL STORE - EXPLORING THE IMPACT OF COLOURS 


#### Abstract

The purpose of the paper is to explore the elements that influence customer loyalty in different dominant colour environments in a retail store that sells groceries. The paper explores the relationship between customer satisfaction, exploring the store environment, communications with sales personnel and repurchase intentions in different colour environments. Furthermore, it explores the gender impact on creating customer loyalty in warm, cool and neutral colour environments. Empirical research is conducted using three different colour environments in a retail store that sells groceries. Based on research findings, exploring store environment is found to be the most influential element that boosts repurchase intentions. Gender stimulated differences are also found. For women, in warm, cool and neutral colour environment the dominant influence on repurchase intentions is exploring the store environment. For men, in both warm and cool colour environment communication with sales personnel influences their repurchase intentions. The research contributes to the existing body of knowledge on the influence of colours on repurchase intentions in the context of South-East European culture. Managerial implications are offered and suggestions for further research provided.


Keywords: retail store, colour, store environment, repurchase intentions

## 1. Introduction

The amount of information that consumers are exposed to grows every day. Triggering consumer reaction to a certain product or service has become an art. Consumers very often make on the spot decisions. The percentage of on the spot decision making was $76 \%$ in 2012 (POPAI, 2012). Therefore, influencing the consumer in a retail store is of great importance. The reaction itself can be seen through two types of behaviour (Donovan, Rossiter, 1982): approaching or avoiding the interaction with the environment. Of course, an organization's goal is to inspire interaction of the store environment, employees and consumers. However, the consumer reaction to return to a store as a consequence of the mentioned interaction is under the influence of several elements.
Physical environment affects consumers and employees (Bitner, 1992) and it is considered that the colour of store space is not necessarily connected only with the consumer reaction. Rather, it is connected also with the employees that work in that store environment. Interaction of different elements of a selling atmosphere (Turley, Milliman, 2000), like external and internal variables, product arrangement, design, product layout, decoration and human element, is a possible explanation for that interaction. Therefore, elements of the selling atmosphere create the interaction between the store area and people in that area, whether they are consumers or store employees. Pleasant store experiences prompted by retail store environment entice the consumers to spend more time in the store and spend more money than they originally planned (Donovan et al., 1994). Moreover, pleasant shopping experiences enhance spending as well as the attachment to a certain store (Sherman et al., 1997), that is, they are connected with the feeling of enjoyment. In a relaxed store atmosphere, consumers are more content, relaxed and they feel free to communicate with unknown persons. They can also stay in a particular store for a longer period of time. Enjoyment and a pleasant feeling that is induced in a store space contribute to consumers' desire for returning and repurchasing in the same retail store. Consumers are starting to identify themselves with the store (Ganesh, 2000 in Jones, Taylor, 2007) and consider returning (Kim, Ok, 2009) or re-purchasing (Jones, Taylor, 2007).

Consumer reactions, i.e. their purchasing and purchase decisions are under the influence of colours (Crowley, 1993; Babin et al., 2003), whether through inciting pleasant feelings during shopping (Bellizzi, Hite, 1992), physical attraction of the store (Bellizzi et al., 1983), or through creating opinions and consumer assessment about the product itself (Middlestadt, 1990). However, it is necessary to note that all colours that are used in a retail store space do not affect the consumers' shopping intention in the same way.
Colour affects people psychologically, physically and economically (Bosket et al., 2012). Colour can incite thinking and cause different reactions. Universally, cold colours are preferred over warm colours (Ellis, Ficker, 2001; Zentner, 2001; Madden et al., 2000). Similarly, Bellizzi and Hite (1992) suggest that although in a blue retail store environment more positive shopping outcomes occur (more stimulated shopping, less shopping postponement, more shopping appeal), the red colour can stimulate shopping outcome for products that are not expensive and not durable. But neutral colours (Crowley, 1993; Babin et al., 2003) and their influence on consumer behaviour is sometimes overlooked. Apart from direct influence of colours on consumers' shopping decisions and consumer behaviour, gender influence can also be noted. Although cold colours, especially blue, are dominantly preferred by consumers (Hallock, 2003) there are noticeable differences in preference towards other colours depending on gender.
Based on the previous elaboration, the purpose of this paper is to explore the relationship between colour of the retail store space and consumer loyalty. That is to say, to explore different colour environment elements that enhance consumer loyalty in a grocery retail store, taking into account possible gender based influence. The goal of the research is to emphasize the need for using different colours in shaping the grocery store environment with the aim of increasing consumer's return and repeat purchase in a specific retail store.
The paper is organized as follows. Firstly, conceptual background and hypothesis development related to consumer loyalty and elements that enhance loyalty as well as retail store environment is provided. This is followed by empirical research and hypothesis testing. At the end, a conclusion is provided as well as future research and research limitations discussed.

## 2. Conceptual background

### 2.1. Store environment, colours and gender

Atmospheric or ambient conditions affect the five senses both on consumer and employee level (Bitner, 1992). Furthermore, they influence emotions, beliefs and physiological sensations that lead to different consumer and employee behaviour. Different combination of elements within physical environment setting will influence individuals differently (Ezeh, Harris, 2007). Thus, no unique combination for a certain service can be proposed. Moreover, service providers should experiment and try to define their own combination of physical environment elements.
Physical environment consists of different elements (Baker, 1986 in Koernig, 2003; Bitner, 1992; Ezeh, Harris, 2007). These elements are ambient factors, design factors, signs/symbols/artefacts and social factors. Ambient factors include air quality, noise, music, scent, cleanliness and lighting. Design or space/function factors are architecture, colour, materials, equipment, textures, accessories and layout. Signs, symbols and artefacts include scale signage, personal artefacts, and style of decor. Social factors include other consumers and service personnel as well as outlet vulnerability (Daunt, Harris, 2012).
Reaction of the individual on environmental influences can be described through two types of behaviour. These are approach and avoidance that include four basic dimensions of behaviour (Donovan, Rossiter, 1982): wish for physical maintaining in the environment; wish for exploring the environment, wish to communicate with other individuals in the environment and increasing performance and satisfaction. So, every individual can apply approach or avoidance reaction in the same retail store environment.
Sight (2006) claims that people can make that decision in 90 seconds based on first impressions, and around 62-90\% of these decisions are based on colours. According to Aslam (2006) the selection of the adequate colour can attract consumers, but also influence their shopping decisions. This is especially expressed in retail stores where consumers spend an average of 0.03 seconds looking at exhibited products (Stedman, 2008). Colour is among the elements that create the retail store atmosphere general impression (Countryman, Jang, 2006).

Perception about product exclusivity is formed through colours (Middlestadt, 1990), whether it is the product's colour, or the dominant colour in a specific store environment; a dominant cool colour contributes to perceived exclusivity of a product. Similarly, in a retail store environment where a cool colour is dominant, consumers experience greater buying intention as well as motivation to explore products and retail store environment in general (Bellizzi, Hite, 1992; Babin et al., 2003). Store exterior should be painted using a warm colour, and store interior should be in a cool colour (Bellizzi et al., 1983) to stimulate positive consumer reactions. Bellizzi and Hite (1992) consider cool colours to boost the wish for shopping and observing products, but it is also important to bear in mind that warm colours incite excitement. Excitement is connected with impulsiveness, which can result in positive shopping outcomes (Crowley, 1993). Colour is considered an element of brand identity (Lijović, 2012). Therefore, in their marketing communications organizations should concentrate on using one colour scheme constantly (Tkalac Verčič, Kuharić Smrekar, 2007). Hence, organizations ought to use the same colour scheme in their brand colours, their store environment and market communication materials. From a gender perspective, people generally prefer the blue colour spectrum (Ellis, Ficker, 2001). However, differences between men and women are noted. Moreover, even if blue is the preferred colour among both genders (Hallock, 2003) the second preferred colour vastly differs between males and females. Unlike men, women prefer yellow (Lange, Rentfrow, 2007). Even if yellow is a warm colour, using this colour will not provoke different consumers' impulsive buying reactions between males and females (Mihić, Kursan, 2010). Light tones in contrary to dark tones of the same colour provoke more positive reactions (Hemphill, 1996) in both genders. Hence, there is domination in individuals' preferences of cool colours, especially blue, when compared to warm colours (Ellis, Ficker, 2001; Zentner, 2001; Madden et al., 2000).

### 2.2. Creating customer loyalty <br> 2.2.1. Customer satisfaction

Only completely satisfied consumers can feel high level of satisfaction and true loyalty (Reichheld, 2001). Satisfaction is prevalently explored as total customer satisfaction and in that approach expectations with the perceived product/service, that is, an ideal product is compared to the bought one (Johnson et al., 1995). Similarly, Giese and Cote (2000) point out that satisfaction is actually an emotional reaction that is related to product expectations and previous experiences. Satisfaction happens after consuming the product/service and it has cumulative character.
Factors that create satisfaction can be divided into two categories (Grbac et al., 2007), the ones connected with the supply and those connected with consumers. Factors connected with the supply are (Storbacka et al., 1994; Wang, Lo, 2003) product quality, price, time and characteristics of the product. Factors connected to consumers are (Anderson et al., 1994; Johnson et al., 1995) experience, expectations, level of involvement and product experience. These factors through interactions create customer satisfaction. Satisfaction is created through adjustment of the supply that is adapting the marketing mix according to expectations, needs and wishes of the consumers. It has to be taken into account that so called basic Maslow's needs determine product preference in such a way that consumer's dominantly expressed need is satisfied (First, Gržinčić, 2010).

Creating satisfaction in a store environment is connected to the creation of a selling atmosphere. The atmosphere in a store environment is observed (Kotler, 1973) through sight (colour, light, size, shape), hearing (sound), smell (smell, freshness) and touch (smoothness, temperature, softness), which are also the atmospheric dimensions. The aforementioned influences the creation of positive consumer experience. Satisfaction, that is, a feeling of pleasure that arises from positive experience, has a positive influence on consumer spending, and retail store preference (Sherman et al., 1997). Furthermore, investment into employees and creating an atmosphere in a retail store is connected with customer satisfaction (Kadić et al., 2011).
Still, differences have been noticed depending on the price range, i.e. in retail stores where lower priced products are sold, satisfaction is connected with the employees, whereas in retail stores where
higher priced products are sold, the environment and atmosphere dimensions play a bigger role.

### 2.2.2. Exploring the store environment

When store design elements create an image similar to products/services the store is selling, it is more likely that consumer will search for additional information about products/services and it is more likely they will explore retail store offering (Lam, 2001). Consumers will also spend more time in a store (Mitchell et al., 1995) if elements of store environment are in congruence with the store image. That is to say, information search and processing is influenced by store environment and the perceived store image. However, when relational commitment and relational equity are taken into account the influence of image on customer loyalty is diminished (Dlačić, Žabkar, 2012).
Elements of store environment can provoke different emotional states (Spies et al., 1997) and consequently influence shopping behaviour. Moreover, enjoyment (Hogg, Penz, 2008) influences the willingness to explore the store. Also, pleasantness positively influences the unplanned extension of the store visit (Donovan et al., 1994) and its exploring, whereas arousal has a positive impact on the number of items purchased and time spent in a store (Kaltcheva, Weitz, 2006).
Besides emotional states, store environment influences cognitive and physiological states (Lam, 2001). So, when shopping for different product categories, consumers can experience hedonistic or utilitarian value (Floch, 1988 in Lam, 2001). People that experience hedonistic value while shopping are more prone to explore the store and products/ service it is offering. Similarly, Kaltcheva and Weitz (2006) assert that, based on recreational and taskoriented motivation of consumers, a store environment should be modelled to provide consumers with more satisfaction and a feeling of pleasantness. Recreational consumers derive inherent satisfaction from shopping activity and therefore like high-arousal store environment that creates rich shopping experiences.

### 2.2.3. Communicating with sales personnel

Organizations have the possibility to create an environment that will make buying process as effective
as possible both in satisfaction and sales volume (Dube et al., 1995). If perceived as stimulating and pleasant, store design positively influences perception of interpersonal service quality (Bitner, 1992). The store environment influence on shopping behaviour is perceived through social factors that is, employee perception, and contributes to positive evaluation of interpersonal service quality (Baker et al., 2002). Hence, store environment contributes to enhancing patronage intentions through positively perceived interpersonal service quality. This relationship between perceived quality of interpersonal interaction and customer loyalty can be also moderated through relationship quality (Vesel, Žabkar, 2010). Therefore, cooperative interaction and mutual disclosure contribute to consumer-seller bond and boost future sales opportunities (Crosby et al., 1990).

Environment-induced pleasure creates positive attitudes and stimulates behaviour towards exploring physical environment, but also enhances affiliation with other persons in that environment (Mehrabian, Russell, 1974, 1975 in Dube et al., 1995). In a pleasant environment, consumers will ask for more information (Mitchell et al., 1995) and start communicating with salespersons. Also, reactions like pleasure and arousal are contributing to more expressed willingness to communicate and socialize with sales personnel (Dube et al., 1995).

### 2.2.4. Repurchase intentions

Several authors define loyalty (Oliver, 1999; Meyer, Blümelhuber, 2000) as consumer's commitment to a particular organization, but Oliver's point of view is one that is widely accepted. So, loyalty is deeply held commitment to re-buy or re-patronise a preferred product/service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour (Oliver, 1997). Hence, a repurchase is possible with establishing and managing relationships with customers through adapting organizations' offering and through constantly providing value and enhancing satisfaction.
A truly loyal customer, that is, a partner, is established through constant provision of higher value and satisfaction. One of the characteristics of a truly loyal customer is the possibility to reach premium loyalty (Dick, Basu, 1994; Griffin, 1997). This type of loyalty is characterised by high repurchase pa-
tronage and high relative attitude towards the organization. Some organizations are more successful in developing loyalty and creating loyal customers. These organizations are considered loyalty leaders. Their ability to develop and sustain loyal customers is based on providing superior value, right customers and right employees as well as enduring commitment to develop loyalty (Reichheld, 2001).
Customer loyalty can be explored through repurchase intentions (Dick, Basu, 1994; Jones, Taylor, 2007; Bloemer, Odekerken-Schröder, 2007). Exploring behavioural consequences of customer loyalty can be seen as having the intention to buy or use an organization's product/service more often in the future (Zhang, Bloemer, 2008; Garbarino, Johnson, 1999). Hence, when aiming to boost repurchase intentions, organizations should focus not only on mere repeated buying through different promotional activities, but try to provoke in customers a commitment and preferable attitude towards their organization.
By creating pleasant ambient conditions, a store environment stimulates spending and the number of bought products (Turley, Milliman, 2000). It also stimulates consumers to remain longer in specific store, as well as to explore the products exhibited in the store (Donovan, Rossiter, 1982). All this contributes to enhancing repurchase intentions. The store atmosphere influences the time spent there and liking the store (Spies et al., 1997), as well as consumers' mood. Different emotional states like enjoyment (Hogg, Penz, 2008) influence the willingness to return to a store. Also, pleasure and arousal have a positive influence on money spent in a store (Sherman et al., 1997). Therefore, emotional states stimulate purchasing as well as repurchasing intentions.

### 2.3. Hypotheses development

Past research (Bellizzi et al., 1983; Middlestadt, 1990; Bellizzi, Hite, 1992; Crowley, 1993; Babin et al., 2003) concentrated on exploring the influence of warm colours (red, yellow and orange), and cool colours (blue, purple and green) on consumer behaviour. Neutral i.e., achromatic colours (white, black and grey) have been neglected. Also, the influence of colours on consumer behaviour was researched in a furniture store (Bellizzi et al., 1983; Crowley, 1993), television store (Bellizzi, Hite, 1992) and a fashion store (Babin et al., 2003), while consumer behaviour
and reaction to colour in a grocery retail store remained unexplored. Colours can contribute to pleasant feelings during shopping (Bellizzi et al., 1983; Bellizzi, Hite, 1992), and also colours can influence consumers' perception of the product (Middlestadt, 1990; Crowley, 1993). Therefore, it is considered that the difference in perception depends on the colour that prevails in a store environment.
H1: There are differences in the perception of the selling environment of a grocery retail store depending on the dominant colour.
Colours really do influence the consumer behaviour (Bellizzi et al., 1983; Middlestadt, 1990; Babin et al., 2003). That is to say, they influence consumer attitude towards buying a product (Middlestadt, 1990, Bellizzi, Hite, 1992), the amount of money spent (Turley, Milliman, 2000; Bellizzi, Hite, 1992) and the number of products that consumer will buy (Turley, Milliman, 2000). Also, they influence the consumer's wish to browse (Bellizzi, Hite, 1992, Babin et al., 2003), whether the store or the products exhibited. Colours influence the emergence of pleasant feelings during buying (Bellizzi et al., 1983; Bellizzi, Hite, 1992), thus inspiring communication in the store environment. Satisfaction i.e., a pleasant feeling is created (Sherman et al., 1997) which positively influences retail store preference. Consumers develop loyalty through satisfactions' influence, wish to browse around the store and communicate with employees, spending more time and spending more money in a store. Physical environment is a service quality element that includes spatial layout and assortment as well as ambience (Rajic et al., 2012). On the other hand, perceived service quality enhances patronage intentions (Baker et al., 2002). So, the relationship between physical environment and patronage intentions is also present. Research shows that colour preference depends on the gender (Meerum Terwocht, Hoeksma, 1995).

However, most studies were conducted on female shoppers (Bellizzi et al., 1983; Middlestadt, 1990, Crowley, 1993; Babin et al., 2003). Male shoppers have been included in research only sporadically (Bellizzi, Hite, 1992).
H2: Influence of the colour that prevails in a grocery retail store on different elements that enhance repurchase intentions depends on the gender.

## 3. Empirical research

### 3.1. Research methodology and sample

Empirical research was conducted in order to investigate the stated hypotheses. Research was administered during May and June of 2014. Online research was used and the sample was based on snowball principle. The initial sample available to researchers was divided into three groups according to colours. Every group was sent, along with the questionnaire, a picture of the grocery retail store in a 3D version in red, blue or a neutral colour.
A questionnaire was prepared following Donovan and Rossiter's (1982) approach, that is, their model of Approach/Avoidance. The questions used in the research cover the satisfaction during purchasing, time spent in finding and exploring the store offering, desire for communication with the sales personnel, intention to spend a longer period of time in store and to spend more money than intended as well as the probability of returning to the store. All questions were formed using the 5 -point Likert scale, where 1 stands for 'I totally disagree', and 5 stands for 'I totally agree'. The questionnaire also had demographic questions and those connected to preferences for a single colour or a group of colours. In total, 150 answers were collected, for every store colour (red, neutral and blue) answers were given by 50 respondents. Table 1 explains the sample included in the research.

## Table 1 Sample Structure

| Store Colour | Number of respondents | Gender |  | Age |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M | F | >20 | 21-30 | 31-40 | 41-50 |
| Red | 50 | 44\% | 56\% | 0 | 66\% | 26\% | 8\% |
| Neutral | 50 | 40\% | 60\% | 0 | 58\% | 30\% | 12\% |
| Blue | 50 | 40\% | 60\% | 4\% | 68\% | 22\% | 6\% |
| Total | 150 | 41.33\% | 58.67\% | 1.33\% | 64\% | 26\% | 8.67\% |

Source: Research results

Table 2 Average grades on customer behaviour dimensions

| Dimensions of customer behaviour | Survey questions | Average grades according to retail store space colour |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Warm store space | Neutral store space | Cold store space |
| Satisfaction | I like this retail store. | 4.22 | 4.06 | 4.04 |
|  | I would feel comfortable if I were in this retail store. | 3.88 | 3.88 | 3.72 |
| Research | I would like to spend more time in this retail store. | 3.881.3** | 3.862.3** | 3.48 |
|  | I would like to look around this store space. | 4.181.2* | 3.822.3** | 4.2 |
|  | I would like to inspect the products in this retail store. | 4.08 | 3.98 | 4.12 |
| Communication | In this retail store I would not hesitate to ask the staff for advice regarding my purchase. | 4.04 | 3.8 | 3.96 |
| Retention and spending | I would spend more time in this retail store than planned. | 3.421.3** | 3.3 | 3.04 |
|  | In this retail store I would spend more money than I planned. | 3.221.3** | 3 | 2.86 |
| Repurchase intentions | I would like to come back to this retail store for another purchase. | 3.7 | 3.54 | 3.54 |
|  | TOTAL AVERAGE GRADE | 3.85 | 3.69 | 3.66 |

Note: 1,2- statistically significant value of t-test in comparison to the retail store where warm and neutral colours are dominant; 1,3-statistically significant value of t-test in comparison to the retail store where warm and cold colours are dominant; 2,3 - statistically significant value of the $t$-test in comparison to the retail store where neutral and cold colours are dominant. ${ }^{*} p<0.0 ;{ }^{* *} p<0.05$

## Source: Research results

We can conclude that the research sample consists of $58.67 \%$ of women and $41.33 \%$ of men. Furthermore, the largest group are the respondents between 21-30 years of age (64\%).

### 3.2. Research results

A further analysis was conducted in order to explore differences regarding the colour of the store environment. According to colour classification, a retail store in which red is a dominant colour was named warm store space.

A retail store in which neutral colours are dominant (white and brown) was named neutral store space, and a retail store space in which the blue colour was dominant was named cold store space. The results of the analysis are shown in Table 2.
Based on the conducted analysis it can be concluded that retail store space in which warm colours are dominant have the highest average grade. Based on this, a warm colour store environment has the most positive influence on consumer behaviour. Furthermore, it will encourage customers to shop more in a grocery shop. Although, it is necessary to point out that statistically significant differences of $t$-test of independent samples show that the difference is observed in the variables that are included in the research dimension and the dimension of retention and spending. Therefore, it can be concluded that the stated hypothesis H1: There are differences in perception of the groceries retail store depending on the dominant colour is partially confirmed. Hence, there are not statistically significant differences in all the explored dimensions of the retail store, but just in a few of them.

Table 3 Retail store - warm colours


Note: $N=50$ ( $M=22$; $F=28$ ). Standard errors are shown in the brackets.
Method of including the independent variables: $a$ - enter method; $b$ - stepwise method. * $p<0.10$; ** $p<0.05$
Source: Research results

In order to explore the reliability of the scales used in this research, and based on previous research (Donovan, Rossiter, 1982) Cronbach alphas for factors with more than one item are calculated. Satisfaction has $\alpha=0.903$, research dimension $\alpha=0.857$, and in retention and spending $\alpha=0.927$. The aforementioned shows good scale reliability where mentioned constructs are measured and they can be used in further research.
Further research of the proposed hypothesis encompasses conducting hierarchical multiple regression. As the proposed hypothesis distinguishes colour influence on consumers when deciding to return to a retail store, in the analysis for dependent variable repurchase intention was used. Retaining and spending represents an element that is sometimes corresponding with repurchase intentions. However, it is necessary to differentiate between different levels of explored repurchase intention construct. So, it is justified to explore retaining and spending and repurchase intentions as separate constructs. Consequently, retention and spending is included in the model as the controlling variable. Furthermore, the analysis was conducted in a way that the influence of independent variables of satisfaction, research dimension, communication dimension, and retention and spending was explored. Additionally, analysis was conducted to test the relationship between the aforementioned variables and repurchase intention in regard to the colour of the store environment. Also, the influence of gender on the elements that motivate returning to the retail store was explored. In the calculation, average scales for satisfaction, research, and retaining and spending were used. For communication and repurchase intentions, however, since they were measured with one item, original values were used. Research results are shown in Tables 3, 4, and 5.
In Table 3 when we explore the colour of the retail store we notice that in the retail store where warm colours are dominant retaining and spending has a significant role in the definition of repurchase intentions ( $\beta=0.830$ ). But when that model is enlarged with other explored variables, the influence of retaining and spending is reduced ( $\beta=0.546$ ) and research dimension ( $\beta=0.391$ ) conveys a part of the influence of store environment on repurchase intentions. If we take into account respondents gender the situation changes. Among men, the influence on repurchase intentions is based on retaining and spending ( $\beta=0.396$ ), communication dimension ( $\beta=0.377$ ) and satisfaction ( $\beta=0.299$ ). With women,
repurchase intentions are influenced by retaining and spending ( $\beta=0.522$ ) and research ( $\beta=0.376$ ). Introducing new variables into the model increases $\mathrm{R}^{2}$ by $6.8 \%$ in regard to the model when only retaining and spending is included in the analysis. All F-values are statistically significant at the level $\mathrm{p}<0.05$. In retail store where neutral colours are dominant, the role of retaining and spending is diminished when new dimensions are added to the model. It can be concluded that retaining and spending has stronger influence ( $\beta=0.576$ ) on repurchase intentions, in regard to research dimension ( $\beta=0.341$ ). Within the male gender, in the neutral coloured space the influence of retaining and spending is dominant ( $\beta=0.824$ ), whereas in the female gender research dimension ( $\beta=0.543$ ) has a stronger influence on repurchase intentions than retaining and spending ( $\beta=0.498$ ). By adding new variables into the model $\mathrm{R}^{2}$ changed on average by $14 \%$. All F - values are statistically significant at the level $\mathrm{p}<0.05$. By analysing the retail store where cold colours are dominant we can notice that by including new variables in the model, the influence of retaining and spending on repurchase intention becomes statistically insignificant. Exploring the influence we notice that the research dimension ( $\beta=0.562$ ) has greater influence on repurchase intention than communication ( $\beta=0.409$ ). Still, if we look at the gender influence on the elements that influence repurchase intention we can notice that the dominant influence among men is shown by the communication dimension ( $\beta=0.801$ ). Among women, research dimension ( $\beta=0.563$ ) has a greater influence on repurchase intention than communication ( $\beta=0.375$ ). By adding new variables into the model while exploring the influence of cold coloured retail store on customer loyalty the $\mathrm{R}^{2}$ changed on average by $30.48 \%$. All Fvalues are statistically significant at the level $\mathrm{p}<0.05$. In all the models tolerance and VIF values are on an acceptable level. The greatest VIF value is 2.674, and the smallest tolerance is 0.374 . The average VIF value amongst all the models is 1.542 , which indicates that collinearity is not a problem. Furthermore, average VIF value is not greater than 1 . The greatest value of the Durbin-Watson test in all the models is 2.482 and the average value of the Durbin-Watson test is 1.877 , thus we can conclude that in the models the residuals are not related.
It can be concluded that, depending on the colours that dominate in a grocery retail store environment, different variables are enhancing repurchase intentions. In a retail store where warm and neutral

Table 4 Retail store - neutral colours

|  | Model 1 |  |  | Model 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | beta | t-value | B | beta | t-value |
| Constant | $1.152^{* * *}(0.300)$ |  | 3.836 | -0.055 (0.452) |  | -0.121 |
| Retaining and spending ${ }^{\text {a }}$ | 0.758** (0.090) | 0.772 | 8.418 | $0.565^{* *}(0.100)$ | 0.576 | 5.660 |
| Satisfaction ${ }^{\text {b }}$ |  |  |  |  |  |  |
| Communication ${ }^{\text {b }}$ |  |  |  |  |  |  |
| Research ${ }^{\text {b }}$ |  |  |  | $0.467^{* * *}(0.139)$ | 0.341 | 3.355 |
| $\mathrm{R}^{2}$ |  |  | 0.596 |  |  | 0.674 |
| $\mathrm{R}^{2}$ (adj) |  |  | 0.588 |  |  | 0.660 |
| $\mathrm{R}^{2}$ (change) |  |  | 0.596 |  |  | 0.078 |
| F |  |  | 70.857** |  |  | 48.624** |
| Effect size |  |  |  |  |  | 0.239 |
| Power |  |  |  |  | 0.858 |  |
| MALE |  |  |  |  |  |  |
| Model 1 |  |  |  |  |  |  |
|  | B | beta | t-value |  |  |  |
| Constant | -0.027 (0.551) |  | -0.049 |  |  |  |
| Retaining and spendinga | $1.032^{* * *}(0.167)$ | 0.824 | 6.172 |  |  |  |
| Satisfactionb |  |  |  |  |  |  |
| Communicationb |  |  |  |  |  |  |
| Researchb |  |  |  |  |  |  |
| R2 |  |  | 0.679 |  |  |  |
| R2 (adj) |  |  | 0.66 |  |  |  |
| R2 (change) |  |  | 0.679 |  |  |  |
| F |  |  | 38.089** |  |  |  |
| Effect size |  |  |  |  |  |  |
| Power |  |  |  |  |  |  |
| FEMALE |  |  |  |  |  |  |
|  | Model 1 |  |  | Model 2 |  |  |
|  | B | beta | t-value | B | Beta | t-value |
| Constant | $1.627^{* * *}(0.317)$ |  | 5.125 | -0.623 (0.433) |  | -1.439 |
| Retaining and spendinga | $0.672^{* * *}(0.094)$ | 0.803 | 7.130 | $0.417^{* *}(0.076)$ | 0.498 | 5.464 |
| Satisfactionb |  |  |  |  |  |  |
| Communicationb |  |  |  |  |  |  |
| Researchb |  |  |  | $0.803^{* * *}(0.135)$ | 0.543 | 5.958 |
| R2 |  |  | 0.645 |  |  | 0.847 |
| R2 (adj) |  |  | 0.632 |  |  | 0.385 |
| R2 (change) |  |  | 0.645 |  |  | 0.202 |
| F |  |  | 50.842** |  |  | 74.498** |
| Effect size |  |  |  |  |  | 1.320 |
| Power |  |  |  |  | 0.998 |  |

Note: $N=50$ ( $M=20 ; F=30$ ). Standard errors are shown in the brackets. Method of including the independent variables: $a$ - enter method; $b$ - stepwise method. " $p<0.10$; ** $p<0.05$
Source: Research results

Table 5 Retail store - cold colours


Note: $N=50$ ( $M=20 ; F=30$ ). Standard errors are shown in the brackets. Method of including the independent variables: $a$ - enter method; $b$ - stepwise method. " $p<0.10$; "* $p<0.05$ Source: Research results
colours prevail, a dominance of research dimension is found as a forecaster of repurchase intentions. In a retail store where cold colours prevail, both research dimension and the communication dimension have an influence on repurchase intentions. Moreover, taking into account the gender, it can be concluded that besides the colours prevailing in a retail store, in the female gender a dominance of research dimension is established. Amongst the male gender, communication dimension prevails as the most significant foreteller of the decision to return to the retail store. Therefore it can be concluded that the stated hypothesis H : Influence of the colour that prevails in a grocery retail store on different elements that enhance repurchase intentions depends on the gender is confirmed.

## 4. Conclusion and managerial implications

This paper explores the area of customer loyalty through researching the role of colours in customer repurchase intention in a retail store. Exploring the elements that positively influence repurchase intentions such as satisfaction, communication and research dimension, and retaining and spending in different coloured retail store environments, several conclusions can be drawn.
Looking at the research results through retail stores in which different colours prevail, it is suggested to use warm colours in grocery retail store interior. All of the explored dimensions are graded with a higher grade in retail stores where warm colours are dominant. Products that are purchased there are bought routinely, so warm colours like red, orange and yellow are advised. Red colour can be positive for products that are not expensive and durable (Bellizzi, Hite, 1992).
A dominant presence when deciding to return to a store is the research component, regardless of the prevailing colour. If the gender influence is regarded, it can be noticed that the specified connection is present in the female gender, i.e. women stay longer, browse the retail store and products regardless of the retail store colour. In cold and neutral coloured retail stores a greater relationship between research dimension and repurchase intention is found.

Therefore, cold colours in the context of higher quality groceries can be used for example in exhibitions while introducing expensive, higher quality groceries, in places where the goal is to introduce the customers to the products (presentations) and other situations that demand engagement of research dimension of customer behaviour.
If communication with the sales staff is to be established in the retail store as a prerequisite of returning to the store, using cold colours is suggested. For both men and women, communication dimension is expressed as the influence on their returning behaviour to the retail store. Cold colours are positive and relaxing (Bellizzi et al., 1983). Therefore, they induce relaxed feeling among customers and thus they develop communication with the sales personnel more easily, that is, if they feel more comfortable in that retail store the chances of coming back grow.
The role of individual elements that inspire consumer loyalty differs depending on the dominant colour in the retail store. Although previous research points out that satisfaction is one of the basic prerequisites of loyalty (Oliver, 1980, Fornell, 1992), their connection is not a necessary condition. Research has shown that relatively high level of satisfaction does not contribute to consumer loyalty development. The relationship between satisfaction and loyalty is present only in a retail store where warm colours are dominant and in male population.
In this research there were certain limitations. Research was conducted on a relatively small sample of respondents and age groups were not equally distributed. Another possible limitation of this research is the retail store images made in a 3D program. Given that the respondents did not experience the retail store space, their answers might be different than they would have been if the experiment had been conducted in a real environment.
For further research it is suggested to conduct a survey on a greater number of respondents, in order to achieve a more even representation of age groups. Through higher representation of age groups it is suggested to explore the influence of age on consumer behaviour during decision making regarding the purchase of groceries in reality simulated conditions. Moreover, it would be interesting to explore consumer behaviour and influence on repurchase intention in retail spaces that are different from those preferred by most consumers (for example green and purple colour).

## References

1. Anderson, E. W., Fornell, C., Lehmann, D. R. (1994), "Customer satisfaction, market share and profitability: Findings from Sweden", Journal of Marketing, Vol. 58, No. 3, pp. 54-67.
2. Aslam, M. M. (2006), "Are you selling the right colour? A cross-cultural review of colour as a marketing cue", Journal of Marketing Comunications, Vol. 12, No. 1, pp. 15 - 30.
3. Babin, B. J., Hardesty, D. M.., Suter, T. A. (2003), "Color and shopping intentions: the intervening effect of price fairness and perceived affect", Journal of Business Research, Vol. 56, No. 7, pp 541-551.
4. Baker, J., Parasuraman A., Grewal, D., Voss, G. B. (2002), "The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions", Journal of Marketing, Vol. 66, No. 2, pp. 120-141.
5. Bellizzi, J. A., Crowley, A. E., Hasty, R. W. (1983), "The Effects of Color in Store Design", Journal of Retailing, Vol. 59, No. 1, pp. 21-45.
6. Bellizzi, J. A., Hite, R. E. (1992), "Environmental Color, Consumer Feelings, and Purchase Likelihood", Psychology and Marketing, Vol. 9, No. 1, pp. 347-363.
7. Bitner, M. J. (1992), "Servicescapes: the impact of physical surroundings on customer and employees", Journal of Marketing, Vol. 58 , No. 2, pp. 57-71.
8. Bloemer, J., Odekerken-Schröder, G. (2007), "The psychological antecedents of enduring customer relationships: an empirical study in a bank setting", Journal of Relationship Marketing, Vol. 6, No. 1, pp. 21-43.
9. Bosket,T., Harrington, L., Hirn, D. (2012), 'The effect of colors: A PBS short documentary", available at:
10. http://www.youtube.com/watch?feature=player_embedded\&v=nX0DHd5QNS8\# (Accessed on: May $24,2013)$
11. Countryman C. C., Jang, S. (2006), "The effects of atmospheric elements on customer impression: the case of hotel lobbies", International Journal of Contemporary Hospitality Management, Vol. 18, No. 7, pp. 534-545.
12. Crosby, L. A., Evans, K. R., Cowles D. (1990), "Relationship quality in services selling: an interpersonal influence perspective", Journal of Marketing, Vol. 54, No. 3, pp. 68-81.
13. Crowley, A. E. (1993), "The Two-Dimensional Impact of Color on Shopping", Marketing Letters, Vol. 4, No. 1, pp. 59-69.
14. Daunt, K. L., Harris, L. C. (2012), "Exploring forms of dysfunctional customer behaviour: A study of differences in serviscape and customer disaffection with service", Journal of Marketing Management, Vol. 28, No. 1-2, pp. 129-153.
15. Dick, A., Basu, K. (1994), "Customer loyalty: towards an integrated framework", Journal of the Academy of Marketing Science, Vol. 22, No. 2, pp. 99-113.
16. Dlačić, J., Žabkar, V. (2012), "Relationship commitment, relational equity and company image in customer loyalty development", Economic Research Journal, Vol. 25, No. 2, pp. 503-524.
17. Donovan, R. J., Rossiter J. R. (1982), "Store Atmosphere: An Environmental Psychology Approach", Journal of Retailing, Vol. 58, No. 1, pp. 34-57.
18. Donovan, R. J., Rossister, J. R., Marcoolyn, G., Nesdale, A. (1994), "Store Atmosphere and Purchasing Behavior", Journal of Retailing, Vol. 70, No. 3, pp. 283-294.
19. Dubé, L., Chebat, J. C., Morin, S. (1995), "The effects of background music on consumers' desire to affiliate in buyer-seller interactions", Psychology and Marketing. Vol. 12, No.4, pp. 305-319.
20. Ellis, L., Ficker, C. (2001), "Color preferences according to gender and sexual orientation", Personality and Individual Differences, Vol. 31, No. 8, pp. 1375-1379.
21. Ezeh, C., Harris, L. C. (2007), "Servicescape research: a review and a research agenda", Marketing Review, Vol. 7, No. 1, pp. 59-78.
22. First, I., Gržinčić, F. (2010), "Relationship Between Consumer Needs and Brand Benefits as Predictor of Ad Preference", in Vrontis, D., Weber, Y., Kaufmann, R., Shlomo, T. (Eds.): $3^{\text {rd }}$ Annual EuroMed Conference of the EuroMed Academy of Business: Business Developments across Countries and Cultures, Euromed Research Business Institute, University of Nicosia, Nicosia, pp. 399-411.
23. Fornell, C. (1992), "A National Customer Satisfaction Barometer: The Swedish Experience", Journal of Marketing, Vol. 56, No. 1, pp. 6-21.
24. Garbarino, E., Johnson, M.S. (1999), "The different roles of satisfaction, trust, and commitment in customer relationships", Journal of Marketing, Vol. 63, No. 2, pp. 70-87.
25. Giese, J.L., Cote, J.A. (2000), „Defining Customer Satisfaction" Academy of Marketing Science Review, Vol. 2000, No. 1, available at: http://www.amsreview.org/articles/giese01-2000.pdf (Accessed on: May $24,2014)$
26. Grbac, B., Dlačić, J., First, I. (2008). Trendovi marketinga [Marketing Trends], Rijeka: Faculty of Economics, University of Rijeka, Solutio.
27. Griffin, J. (1997). Customer Loyalty - How to Earn It, How to Keep It, San Francisco: Jossey-Bass Publishers.
28. Hallock, J. (2003), "Color asingment", available at: http://www.joehallock.com/edu/COM498/index. html (Accessed on: February 8, 2014)
29. Hemphill, M. (1996), "A note on adults' color-emotion associations", The Journal of Genetic Psychology, Vol. 157, No. 3, pp. 275-280.
30. Hogg, M. K., Penz, E. (2008), "Extending Understanding of Consumer Ambivalence in Different Shopping Environments by Investigating Approach-Avoidance Conflicts", European Advances in Consumer Research, Vol. 8, pp. 156-157.
31. Johnson, M.D., Anderson, E.W., Fornell, C. (1995), "Rational and adaptive performance expectations in a customer satisfaction framework", Journal of Consumer Research, Vol. 21, No. 4, pp. 695-707.
32. Jones, T., Taylor, S. F. (2007), "The conceptual domain of service loyalty: how many dimensions?", Journal of Services Marketing, Vol. 21, No.1, pp. 36-51.
33. Kadić S., Palić, M., Čičić M. (2011), "Improvement of Personal Sales Efficiency in Automotive Retailing", Economic Research, Vol. 24, No. 2, pp. 112-125.
34. Kaltcheva, V. D., Weitz, B. A. (2006), "When Should a Retailer Create an Exciting Store Environment?", Journal of Marketing, Vol. 70, No. 1, pp. 107-118.
35. Kim, W., Ok, C. (2009), "The effects of relational benefits on customers' perception of favourable inequity, affective commitment, and repurchase intention in full-service restaurants", Journal of Hospitality \& Tourism Research, Vol. 33, No. 2, pp. 227-244.
36. Koering, S. K. (2003), "E-Scapes: The Electronic Physical Enviroment and Service Tangibility", Psychology \& Marketing, Vol. 20, No. 2, pp. 151-167.
37. Kotler, P. (1973), "Atmosphere as a Marketing Tool", Journal of Retailing, Vol. 49, No. 4, pp. 48-64.
38. Lam, S. Y. (2001), "The Effects of Store Environment on Shopping Behaviors: a Critical Review", Advances in Consumer Research, Vol. 28, No. 1, pp. 190-197.
39. Lange, R., Rentfrow, J. (2007), "Color and personality: Strong's interest inventory and Cattell's 16PF", North American Journal of Psychology, Vol. 9, No. 3, pp. 423-438.
40. Lijović B. (2012), "Product brand identity - a factor od successful market positioning of a brand", Economic Journal, Vol. 25, No. 2, pp. 367-361.
41. Madden, T. J., Hewett, K., Roth, M. S. (2000), "Managing images in different cultures: a cross-national study of color meanings and preferences", Journal of International Marketing, Vol. 8, No. 4, pp. 90-107.
42. Meerum Terwocht, M., Hoeksma, J. B. (1995), "Colors and Emotions: Preferences and Combinations", The Journal of General Psychology, January, Vol. 122, No.1, pp. 5-17.
43. Meyer, A., Blümelhuber, C. (2000), "Relationship marketing success through investments in services", in Hennig-Thurau, T., \& Hansen, U. (Eds.), Relationship marketing: Gaining Competitive Advantage through Customer Satisfaction and Customer Retention, Springer Berlin Heidenberg, Berlin, pp. 107126.
44. Middlestadt, S. E. (1990), "The Effect of Background and Ambient Color on Product Attitudes and Beliefs", Advances in Consumer Research, Vol. 17, No. 1, pp. 244-249.
45. Mihić, M., Kursan, I. (2010), "Market Segmentation Based on the Consumers' Impulsive Buying Behaviour", Economic Journal, Vol. 23, No. 2, pp. 385-399.
46. Mitchell, D. J., Kahn, B. E., Knasko, S. C. (1995), "There's Something in the Air: Effects of Ambient Odor on Consumer Decision Making", Journal of Consumer Research, Vol. 22, No. 2, pp. 229-38.
47. Oliver, R. L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction", Journal of Marketing Research, Vol. 17, No. 4, pp. 460-469.
48. Oliver, R.L. (1997). Satisfaction: A behavioural perspective on the customer, New York: McGrawHill.
49. Oliver, R.L. (1999), "Whence consumer loyalty", Journal of Marketing, Vol. 63, No. 4, pp. 33-44.
50. Rajic, T., Dado, J., Taborecka-Petrovicova, J. (2013), "Linking Retail Service Quality, Satisfaction and Perceived Value to Customer Behavioral Intentions: Evidence from Serbia", Ekonomie a Management, Vol. 16, No. 2, pp. 99-112.
51. Reichheld, F.F. (2001). The loyalty effect: The hidden force behind growth, profits, and lasting value, Boston: Harvard Business School Press.
52. Sherman, E., Mathur, A., Smith, R. B. (1997), "Store Environment and Consumer Purchase Behavior: Mediating Role of Consumer Emotions", Psychology \& Marketing, Vol.14, No. 4, pp. 361-378.
53. Singh, S. (2006), "Impact of color on marketing", Management Decision, Vol. 44, No. 6, pp. 783-789.
54. Spies, K., Hesse, F., Loesch, K. (1997), "Store atmosphere, mood and purchasing behavior", International Journal of Research in Marketing, Vol. 14, No. 1, pp. 1-17.
55. Stedman, J. (2008), "The power of great product packaging design in the food and drink industry", available at: http://www.socreative.co.uk/food-drink-product-packaging-design/ (16 ${ }^{\text {th }}$ February, 2014)
56. Storbacka, K., Strandvik, T., Grönroos, C. (1994), "Managing customer relationships for profit: The dynamics of relationship quality", International Journal of Service Industry Management, Vol. 5, No. 5, pp. 21-38.
57. The Point of Purchase Advertising International (POPAI) (2012), "Shoppers Are Making More Purchasing Decisions In-Store Than Ever Before", available at: http://www.prweb.com/releases/2012/5/ prweb9489590.htm (11 ${ }^{\text {th }}$ February, 2014)
58. Tkalac Verčić, A., Kuharić Smrekar, A. (2007), "Color in marketing communications: disscusing the role of color as a mediating variable in the process of communication", Market, Vol. 19, No. 2, pp 201211.
59. Turley, L. W., Milliman, R. E. (2000), "Atmospherics effects on shopping behavior: a review of the experimental evidence" Journal of Business Research, Vol. 49, No. 12, pp. 193-211.
60. Vesel, P., Žabkar, V. (2010), "Relationship quality evaluation in retailers' relationships with consumers", European Journal of Marketing, Vol. 44, No. 9-10, pp.1334-1365.
61. Wang, Y., Lo, H. P. (2003), "Customer-focused performance and the dynamic model for competence building and leveraging", Journal of Management Development, Vol. 22, No. 6, pp. 483-526.
62. Zentner, M. R. (2001), "Preferences for colours and colour-emotion combinations in early childhood", Developental Science, Vol. 4, No. 4, pp. 389-398.
63. Zhang, J., Bloemer, J.M.M. (2008), "The impact of value congruence on consumer-service brand relationships", Journal of Service Research, Vol. 11, No. 2, pp. 161-178.

Anja Varga<br>Jasmina Dlačić<br>Maja Vujičić

## PONAVLJANJE KUPOVINE U PRODAJNOME PROSTORU - ISTRAŽIVANJE UTJECAJA BOJA

## SAžetak

Svrha ovoga rada je istražiti elemente koji utječu na odanost potrošača u prodajnome prostoru s prehrambenim proizvodima u kojima prevladavaju različite boje. Rad istražuje povezanost između zadovoljstva potrošača, istraživačke dimenzije, komuniciranja s prodajnim osobljem i ponavljanja kupovine u okruženju u kojemu prevladavaju različite boje. Nadalje, rad istražuje utjecaj spola na poticanje odanosti potrošača u prodajnome prostoru u kojemu prevladavaju tople, neutralne i hladne boje. Empirijsko istraživanje je provedeno na primjeru tri različito obojena prodajna prostora s prehrambenim proizvodima. Na temelju rezultata istraživanja dokazano je da je istraživačka dimenzija najutjecajniji element koji potiče ponovni dolazak u prodajni prostor. Razlike u spolu su također uočene. Za žene u toplom, neutralnom i hladnom prostoru utjecaj istraživačke dimenzije je dominantan. Dok za muškarce, u prodajnome prostoru u kojemu prevladavaju tople i hladne boje komuniciranje s prodajnim osobljem utječe na ponovnu kupovinu. Istraživanje doprinosi postojećoj bazi znanja o utjecaju boja na ponavljanje kupovine u kontekstu jugoistočne europske kulture. Menadžerske implikacije, kao i prijedlozi za buduća istraživanja, su predloženi.

Ključne riječi: prodajni prostor, boje, prodajno okruženje, ponavljanje kupovine

