THE IMPORTANCE OF COLOR IN THE MAJOR ROMANIAN BRANDS MARKETING

Radiana Maria TAMBA BEREHOIU $^{\rm 1}$, Ciprian Nicolae POPA $^{\rm 2}$, Stela POPESCU $^{\rm 1}$, Suzana-Maria TAMBA BEREHOIU $^{\rm 3}$

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: +40 21318 28 88, E-mail: radianatamba@yahoo.com; sazzpop@yahoo.com

²S.C. Farinsan S.A., Grădiştea vilage, Comana commune, Giurgiu district, Romania Phone:+40 727 27 78 40, Fax: +40318156038, Email: cipnpopa@yahoo.com

³Bucharest Academy of Economic Studies, Romana Square, 6 Stanislav Cihoschi Street, District 1, Bucharest, jossephine@yahoo.com

Corresponding author: radianatamba@yahoo.com

Abstract

The approach of our study is to identify the most important elements which characterize the use of color in the successful Romanian brands marketing, starting from the main media of the marketing messages, such as: website, advertising posters used in campaigns in the past three years and package of the main product. In the background of Romanian brands' sites, the predominant color is white, followed at a great distance by various shades of green, blue and red. The best positions in the top 50 are associated to the websites that use blue background in construction, followed by the red and yellow. The most common background colors for posters were blue, white, red and green, and the color associated with the best positions in the top 50 for the studied brands was red. The most colors used for the background of the main product package were white, green, blue, yellow and red. The color red was associated with the best top positions. For alcoholic beverages brands, the most common color was yellow, which is mainly used in the design of the main product package (beer and wine brands).

Key words: brands, colour, marketing, Romania

INTRODUCTION

Color plays an important role in the relevant communication related to brand identity. Optimizing colors for building the marketing message can make the difference between success and failure, whether it is done unconsciously, or if it is based on scientific research that meets the requirements of experimental methodology.

The purpose of our investigation was to identify the elements that caracterize color use in the marketing of Romanian successful brands. We started from the media marketing messages, such as: website, advertising posters used in campaigns in the past three years and mainly product package.

MATERIALS AND METHODS

The starting point was the analysis made by Unlock Market Research in September 2010,

resulted in a ranking of the most powerful Romanian brands (Table 1).

There have been selected the most powerful Romanian brands, which have been subjected to statistical processing. There have been removed "single marks" that were not accompanied in this top by equivalent brands, to which can be compared (Dacia, Arctic, Petrom, Savana, Dero, Mobexpert, Rotelecom, Frutti Fresh and Cristim).

There were also removed the marks associated to mass media, based on the grounds that their position in the top of successful brands is due primarily to the quality of the broadcasts' content, color being a less relevant descriptor in their marketing (8 brands).

PRINT ISSN 2284-7995, E-ISSN 2285-3952

Table 1.Top 50 - most powerful Romanian brands (Unlock Market Research, September 2010) [3]

Place	Brand	Place	Brand	Place	Brand
1	Borsec	18	Cristim	35	Biborţeni
2	Dacia	19	Napolact	36	Radio 21
3	PRO TV	20	Rom-	37	Zuzu
			telecom		
4	Dorna	21	La Dorna	38	Prima TV
5	Poiana	22	Rom	39	CEC
6	Timișoreana	23	Bucegi	40	Petrom
7	Izvorul	24	Frutti	41	Kandia
	minunilor		Fresh		
8	Cotnari	25	Pate	42	Poiana
			Bucegi		Negri
9	Ursus	26	Arctic	43	Perla
					Harghitei
10	BCR	27	Farmec	44	Covalact
11	Murfatlar	28	TVR 1	45	Mobex-
					pert
12	Bergenbier	29	Radio ZU	46	Savana
13	KISS FM	30	Libertatea	47	Primola
14	BRD	31	Ciucaş	48	Laura
15	Antena 1	32	Ciuc	49	Magura
16	Pate Sibiu	33	Gerovital	50	Elmiplant

As for the last 33 brands, we examined the way color is used in the background of sites, posters from the advertising campaigns in the last three years, and package. The visible part of the packages (the side accessible to consumer's shelf perception), advertisements in the media and the catches of companies' websites were processed using specialized software developed by National Institutes of Health (USA) medical image analysis: ImageJ. The program has been widely used in scientific research in physics, control of products' and materials' quality etc. In order to achieve our objectives, we used the options of the program that assesses the way colors of an image are built, starting from the three primary colors, Red, Green and Blue.

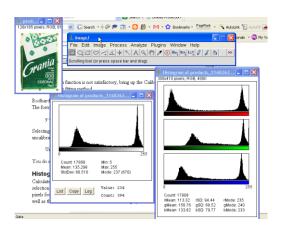


Fig. 1 Image analysis, performed with ImageJ software for the Grania flour (sponge cake flour)

Basically, the program performed for each image, or for selections from it, a specific histogram for each color. The possible values for each primary color (0 to 255) are listed on the abscissa, and the number of corresponding pixels is on represented on the ordinate. So, the program calculates the average amounts of red, green and blue, and associated standard deviations (Figure 1).

Another investigated indicator was the brightness of backgrounds, websites, posters and packages, used in marketing of those brands. Brightness was evaluated based on the average RGB parameters, using the methodology of James Brausch [1]. RGB index value is between 0 and 255, which marks the transition from discrete absolute black to white. Average of 192 means the barrier separating the dark area of a color from the bright colors (Figure 2).

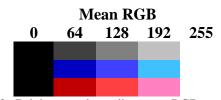


Fig. 2 Brightness depending on RGB parameters average values

The results were interpreted statistically (analysis of variance and regression) using StatSoft, Inc.. (2007). STATISTICA (data analysis software system), version 8.0.

RESULTS AND DISCUSSIONS

There was no correlation between the top position and brightness of wallpapers sites, posters or primary product packages. Linear correlation coefficients were low and statistically insignificant. In Figure 3 we notice that the brightest communication elements used in marketing of trademarks are their sites, followed by main product package background. Average posters brightness was 154.667, value lying in the dark field. Brightness of sites had the lowest coefficient of variation (37.362%).

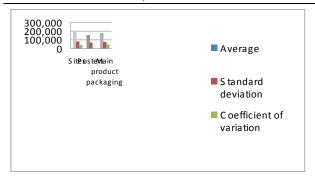
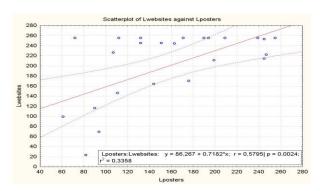
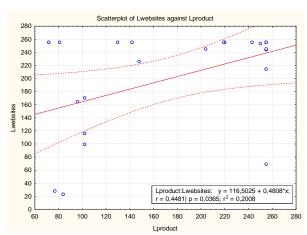


Fig. 3 Average brightness of the background of sites, posters and packages in successful brands





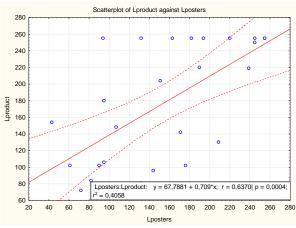


Fig. 4 Regressions: background brightness for siteposters (above), for sites-packages (middle), for packages-posters (below), in analyzed brands

It seems that in global marketing strategy brightness is used consistently, smoothly. Thus, site brightness of backgrounds is significantly positive correlated with brightness of backgrounds packages (r = 0.450*), and distinctly positive significant with background brightness of posters (r = 0.580) (Figure 4).

Table 2.Main colors and variability parameters

Websites background										
No. brands	X*	S _x *	(%)	X ₂ *						
13	24.1	15.1	62.7	790.2						
3	28.3	23.1	81.6	1.159						
3	12.3	7.9	64.4	211.0						
1	11.0	-	-	-						
3	20.3	12.1	59.3	510.0						
2	22.0	14.1	64.3	584.0						
1	21	-	-	-						
18	20.9	15.5	74.0	665.5						
8	24.6	10.8	43.8	708.1						
Posters background										
No. brands	X	S_x	CV (%)	X_2						
8	17.25	17.25	100.0	577.0						
2	26.0	13.4	51.7	741.0						
5	14.6	7.9	54.1	263.0						
6	32.7	16.4	50.1	1290.0						
3	20.0	7.0	35.0	432.7						
4	32.7	16.5	50.3	1276.0						
2	30.0	4.2	14.1	909.0						
1	19	-	-	-						
10	21.0	15.4	73.6	647.0						
21	25.0	14.9	59.5	845.4						
Main product package background										
No. brands	X	$\mathbf{S}_{\mathbf{x}}$	CV (%)	\mathbf{X}_2						
4	24.2	24.1	99.4	1023.7						
5	28.8	14.5	50.4	998.0						
10	31.1	15.1	48.5	1172.3						
3	13.0	8.5	65.7	217.7						
1	-	-	-	-						
1	-	-	-	-						
4	17.0	8.5	50.0	334.7						
1	-	-	-	-						
14	28.0	17.0	60.5	1058.1						
15	24.0	15.1	62.9	801.3						
	No. brands 13 3 3 1 3 3 1 1 1	No. brands X* 13 24.1 3 28.3 3 12.3 1 11.0 3 20.3 2 22.0 1 21 18 20.9 8 24.6 Posters background No. brands X 8 17.25 2 26.0 5 14.6 6 32.7 3 20.0 4 32.7 2 30.0 1 19 10 21.0 21 25.0 product package by the product package	Websites background No. brands X* Sx* 13 24.1 15.1 3 28.3 23.1 3 12.3 7.9 1 11.0 - 3 20.3 12.1 2 22.0 14.1 1 21 - 18 20.9 15.5 8 24.6 10.8 Posters background No. brands X Sx 8 17.25 17.25 2 26.0 13.4 5 14.6 7.9 6 32.7 16.4 3 20.0 7.0 4 32.7 16.5 2 30.0 4.2 1 19 - 10 21.0 15.4 21 25.0 14.9 product package background No. brands X Sx 4 24.2	No. brands X* Sx* CV* (%) 13 24.1 15.1 62.7 3 28.3 23.1 81.6 3 12.3 7.9 64.4 1 11.0 - - 3 20.3 12.1 59.3 2 22.0 14.1 64.3 1 21 - - 18 20.9 15.5 74.0 8 24.6 10.8 43.8 Posters background No. brands X Sx CV (%) 8 17.25 17.25 100.0 2 26.0 13.4 51.7 5 14.6 7.9 54.1 6 32.7 16.4 50.1 3 20.0 7.0 35.0 4 32.7 16.5 50.3 2 30.0 4.2 14.1 1 19 - - <t< td=""></t<>						

*X – average (arithmetic mean), S_x – standard deviation, CV – coefficient of variation, X_2 – mean square

As for the background light posters, for the pairs posters – packages, it has been established a highly significant positive correlation (r = 0.640 ***).

Table 2 shows the backgrounds' colors of websites, posters and packages of the main product from Romanian successful brands, and variability parameters (mean places, mean square, standard deviation and coefficient of variation).

Figure 5 shows that in the sites of Romanian brands, background predominant color is white, followed by further of shades of green, blue and red. This makes, about 70% of the sites, have a bright background.

White background in construction of sites is likely used for contrast, to highlight the secondary colors. White is not the bearer of a specific message, related to the marketing of a certain product. Color significance of health, purity and hygiene is not so strong as the ability to associate with other colors and reinforce their message. A proof is, that despite the frequency with which it is used, white is not a color descriptor for the top brands. White is only the fourth color, after blue, red. and yellow (its mean square is lower than the mean square of these colors). White presents several ergonomic advantages related to work on computer, being less tiring than intense colors, which is an argument that can not be neglected in the construction of sites.

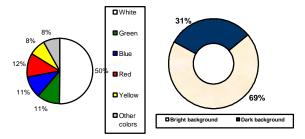


Fig. 5 Main colors and brightness of backgrounds in the sites of Romanian successful brands

As for posters, the most frequent background color was blue, followed by white, red and green. However, it is prefered a dark background, though it does not take the best places in the top (Figure 6).

Blue is one of the most common color used in marketing communication in the world.

Blue is the favorite in the corporate world because it suggests stability and experience. It is also recommended when there are dilemmas on the color required in a marketing construction.

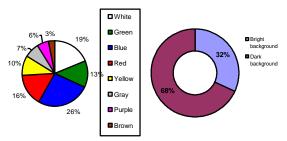


Fig. 6 Main colors and background brightness of the posters of Romanian successful brands.

However, for the posters' background of brands studied by us, the color associated with the best position in top 50 was red (mean square Xp = 263,000, followed by yellow (Xp = 432 667), blue (Xp = 577 000), gray $(Xp = 741\ 000)$ and purple $(Xp = 909\ 000)$. As for the background of main product packages, the most commonly used color is white. This is explained largely due to the prevalence in top of the food industry brands (especially dairy) and drinks (mineral water). High frequency of white color also determines ratio stable balance of the backgrounds, backgrounds dark construction of packages design (Figure 7).

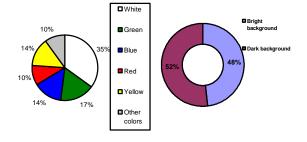


Fig. 7 Main colors of background and brightness of main product package for Romanian successful brands

The second most common color is green, followed by blue, yellow and red. The red color was associated with the best top positions (Xp = 217,667), followed by yellow ($Xp = 263\,000$), green ($Xp = 998\,000$) and blue ($Xp = 263\,000$).

It should be noted that the best top positions were those of the products whose design had a dark background (Xp = 801,333), than those with a design based on a light background (Xp = 1058.142).

The following figures show the color and brightness frequency in the background of websites, posters and main product packages for Romanian successful brands, on reference fields. So, for alcoholic beverages' brands, the most common color is yellow. It is used mainly in the design of main product packages (brands of beer and wine).

Next in order: green, white and red. Green is mainly used for posters' background and packages background, white is used for the background of website, and red for the posters' background. For brands of the alcoholic beverages category, there are generally prefered dark backgrounds, especially for the backround of main products' packages and for posters (Figure 8).

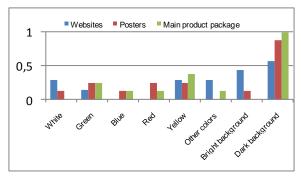


Fig. 8 Frequency of color and brightness in the background of sites, posters and packages, for the brands in the alcoholic beverages field

As for the brands in **the field of soft drinks**, predominant color is white, used primarily in the construction of the site and the posters, rather than in the background of the main product (Figure 9). White is followed by green and blue, used mostly in packages backgrounds.

Combination white - green - blue is specific for the field of mineral water brands. Characteristic for this field is also the prevalence of bright backgrounds against dark backgrounds, and the lack of red and yellow colors.

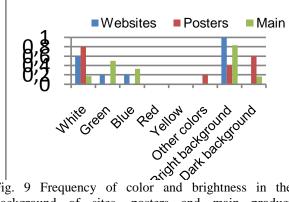


Fig. 9 Frequency of color and brightness in the background of sites, posters and main product packaging, for the brands in the nonalcoholic beverages field

White background dominates (about 50%) in building the brands in the food industry, followed by blue, red and yellow. Green is lacking, probably due to its association in the collective unconscious, with the alteration produced by microorganisms. White is mainly used in the construction of the packages background and web sites, less in the background posters (Figure 10).

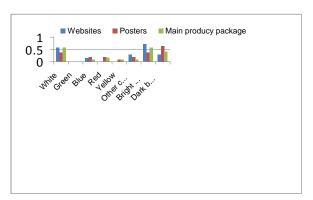


Fig. 10 Frequency of color and brightness in the background of sites, posters and main product package, for the brands in the food industry field

In figure 10 we can notice that bright backgrounds are more common than the dark ones, especially in packages and websites. Dark backgrounds prevail on posters.

Regarding **banking brands**, we notice a balance between white, green, blue and red. White is the predominant color in the construction of sites' background, while white, green, blue and red are used proportionally in posters' background (Figure 11).

Yellow color in Romanian brands, lacks in the

background of sites and posters, in the banking sector.

Regarding fhe brightness of backgrounds, it appears that bright backgrounds are predominant in sites, while in posters, light and dark backgrounds are used equally.

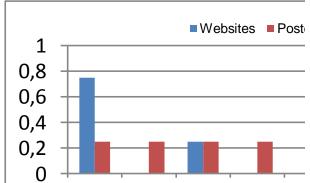


Fig. 11 Frequency of color and brightness in the background of sites and posters, for the brands in the banking field

As regarding **the care products field**, predominant colors are white, green and red (Figure 11). The message of this triplet includes: sanitation, cleanliness, care (white) natural origin (green) and energy (red).

Purple color, included in the chart below under "other colors", is very important for this study. The analyzed brands addresses women and purple color strongly intensifies sensuality and female sexuality. White color is mainly used in building packages background, which is an important problem for cosmetics. Green and purple are preferred in building posters' background, while balanced mixture of white, green and red are preferred in building sites' background.

Blue and yellow colors are completely missing in the background of posters, websites and packages' care products. Lack of yellow in care products brands may be explained by the inadequacy of this color with the message to be transmitted, namely: energy, freshness, beauty and youth.

Yellow color is associated with skin aging and nature aging in general. Yellow is inappropriate for a brand that promotes antiaging products. In addition, yellow suggests grease and "old wives" remedies, altering the technological sophistication element that a cosmetic product should have. Finally, yellow

is generally used to mark certain parapharmaceutical products, such as skin treatment creams based on arnica, calendula or sunscreen creams.

Lack of blue is less understandable, since blue is a color that suggests freshness and energy. One hypothesis could be related to the necessity of Romanian brands to detach from the international brands that dominate the market and use intense blue (Nivea, Oriflame, Avon etc.).

Regarding the brightness of websites' and posters' backgrounds, dark backgrounds are preferred. Bright backgrounds (which are directly related to white, predominant here) are preferred for packing main products.

Our observations and conclusions can be the basis for further more extensive research, which will also include other strategies to address this issue. Considering the color ability to speak directly to the subconscious, the application of methodological elements specific to psychometrics is absolutely necessary.

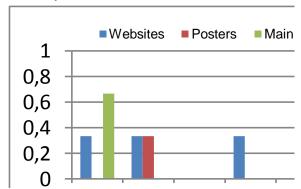


Fig. 12 Frequency of color and brightness in the background of sites, posters and main product packages, for the brands in the care products field

It is very likely that they. would reveal some new information, which are beyond our competence in behavior psychology or regarding the mechanisms of subconscious functioning.

CONCLUSIONS

1. In terms of global marketing strategy of studied brands, brightness of backgrounds is used in a coherent, homogeneous way, brightness values for all pairs formed PRINT ISSN 2284-7995, E-ISSN 2285-3952

between: websites, posters, main product packages being correlated;

- 2. In the background of Romanian brands' sites, the predominant color is white, followed at a great distance by various shades of green, blue and red;
- 3. The best positions in the top 50 are associated to the websites that use blue background in construction, followed by the red and yellow;
- 4. Regarding the posters, the most common color in the background was blue, followed by white, red and green, and the color associated with the best positions in the top 50 for the studied brands was red;
- 5. Regarding the background of the main product package, the most common used color is white, followed by green, blue, yellow and red. The color red was associated with the best top positions;
- 6. Regarding the brands which represent products of the alcoholic beverages field, the most common color is yellow, which is mainly used in the design of the main product package (brands of beer and wine); 7. Combination white green blue is specific to the soft drinks field represented by several brands of mineral water;
- 8. White color dominates in building the background of brands in the food industry, followed by blue, red and yellow;
- 9. Regarding brands in the banking field, we notice a balance between white and green, blue and red;
- 10.Regarding the care products' field, the predominant colors are in order: white, green and red; the message given by this triplet includes: sanitation, cleanliness, care (white) natural origin (green) and energy (red); a special role has the purple color, widely used background in the of posters; 11. The absence of certain colors in the construction of marketing messages seem to be due, from case to case, to the need of separating brands of: other products, marks, even natural phenomena, associated with colors considered unpleasant (suggesting: skin aging, microbial spoilage).

REFERENCES

[1] Brausch James, *Marketing Study: Background Color Vs. Profitability*, <u>www.articlesnatch.com/</u> Article/Marketing-Study--Background-Color-Vs--Profitability/23122

[2]Tamba-Berehoiu Suzana Maria, 2009, Comunicarea în marketingul direct pe piața produselor de morărit și panificație din România, Lucrare de licență, Facultatea de Marketing, Academia de Studii Economice București [Direct marketing communication in the bakery and milling products in Romania, Faculty of Marketing, The Bucharest Academy of Economic Studies].

[3]www.slideshare.net/RevistaBiz/top-50-branduriromanesti, 22 februarie 2011

Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 13, Issue 1, 2013 PRINT ISSN 2284-7995, E-ISSN 2285-3952