

Country Logotype Visual Attractiveness: Eye-Tracking-Based Model

Country logotype is always considered as a visual part of country branding. This research addresses the country logotype elaboration problem while answering the question: how to attract consumer attention to a country logotype using different combinations of its elements. The aim of the article is to develop an eye-tracking based model of country logotype visual attractiveness. The paper presents experimental research using an eye-tracking system; visual attention to logotypes of European countries was assessed to determine the specific eye-catching elements of a logotype. The analysis revealed that in order to attract consumer visual attention, no visual association with a country is necessary; also, the logotype is preferred to be colorful, having high complexity, and shaped letters must be used. The analysis of the research results enabled elaborating a model of country logotype visual attractiveness, which might be used to facilitate the creation of country logotype.

Keywords: country logotype, eye-tracking, visual attention.

Šalies logotipas laikomas vizualia šalies prekių ženklo dalimi. Šiame tyrime nagrinėjama šalies logotipo kūrimo problema bei atsakoma į klausimą, kaip pritraukti vartotojų dėmesį į šalies logotipą, naudojant skirtingus jo elementų derinius. Straipsnio tikslas – sukurti žvilgsnio trajektorija pagrįstą šalies logotipo vizualinio patrauklumo modelį. Straipsnyje pristatomas eksperimentinis tyrimas, taikant žvilgsnio sekimo sistemą. Buvo vertinamas vizualinis dėmesys Europos šalių logotipams, siekiant nustatyti konkrečius vizualinį dėmesį traukiančius logotipo elementus. Analizė atskleidė: norint pritraukti vartotojo vizualinį dėmesį, nereikia vizualinės asociacijos su šalimi; logotipas turi būti spalvingas, vizualiai sudėtingas, pasitelkiamos įmantrios raidės. Tyrimo rezultatų analizė leido sukurti šalies logotipo vizualinio patrauklumo modelį, kurį galima naudoti kuriant šalies logotipą.

Raktiniai žodžiai: šalies logotipas, žvilgsnio sekimas, vizualinis dėmesys.

Introduction

Tourism has been recognized as one of the most rapidly developing areas of the service sector in the entire world (Liu and Chou, 2016); moreover, for socio-economic progress it was named as one of the principal drivers (Najda-Janoszka and Kopera, 2014). Contemporary tourism market is characterized by the fast

growing competition among countries, which is often accompanied with thorough marketing activities. Same as organizations make strategic marketing decisions to ensure sustainable competitive advantage in response to the continuously changing environment (Aghayev and Israfilzade, 2022), to attract visitors and tourists, many countries, towns, and regions are elaborating place marketing

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and branding strategies. S. P. Rainisto (2003) argues that “place marketing is used for multiple goals, such as to build a positive image for the place and attract enterprises, tourists, institutions, events, etc.” (p. 12). Place marketing is often provided based on the methods and tools of general marketing, e.g., M. Kavaratzis (2009) suggests that places have been applying the methods of corporate-level marketing; however, in this case the marketed product is a place. To achieve their positions in the tourism industry, countries adopt international marketing strategies to create a position in consumer minds and to become visible and attractive on the global scale (Lee et al., 2012). S. Same (2014) argues that country branding activities are driven by the need for differentiation; moreover, according to A. Michelson and K. Paadam (2016), places are using creative branding methods on purpose to strengthen their competitive advantages in tourist’s perception. Countries are creating, developing, and redeveloping their brands in order to gain visible and exceptional positions in tourists’ consciousness. A wide body of scientific literature on country branding suggests that it has to be considered as an important part of country marketing.

Today’s environment is more and more visually oriented (Foroudi et al., 2014). Logotypes are considered being a main component of corporate visual identity, therefore, are used to evoke positive emotions, transmit meaning, or reinforce recognition of the company and brand (van der Lans et al., 2009). According to Lee et al. (2012), countries strive to search for place-related symbols and apply them to communicate some

distinctive and unique characteristics of the place to the global consumers, and this process is very similar to marketing communications provided by companies. In a framework of branding a company M. Tero (2012) determines three specific elements encompassed into a brand: brand’s name, its graphic element, and a slogan. Most of the logotypes used by different brands have all the three elements. Supporting the idea that a place can be regarded as a product, a logotype of a place is also supposed to encompass them. In case of a country, a name of brand would be country’s name, and variations with graphic elements and a slogan can be made for evoking visual attractiveness. Logos are often presented in different medias, e.g., digital and web advertising, on packaging, business cards, various annual reports, etc. (Lee et al., 2012). However, in a framework of country marketing and branding, the effect obtained by a logotype might be different if compared to general marketing of goods and services. Therefore, the encompassed elements of the logotype and different their combinations might result in different consumer reactions by attracting visual attention differently. According to Q. Li et al. (2016), visual attention is widely analyzed in the tourism field; however, the authors emphasize the necessity for deeper research of consumers’ viewing behavior toward visual materials in the field a tourism marketing. **The article addresses** relevant scientific as well as managerial **problem**: how to attract consumer attention to a country logotype using different combinations of its elements? **The aim of this research** was to take part in clarification of considerations regarding country logotype

visual attractiveness by assessing the influence of different combinations of country logotype elements on visual attention. By addressing the scientific problem and reaching the aim, article's contribution will result in developing a model of country logotype visual attractiveness based on combined methods: eye-tracking and survey.

The article is structured as follows. Firstly, scientific literature review about the elements of country logotype is provided and research hypotheses are formulated; the theoretical background for the research is formed. Further, the methodology of the research is elaborated and explained. Afterwards, the research results are provided and main implications presented. Conclusions are summarized in the country logotype attractiveness model and provided in the final section of the paper.

Theoretical insights and hypotheses

D. B. Klenosky and R. E. Gitelson (1997) emphasize that each year, huge amounts of state tourism departments' expenditures go to advertising and promotion of their regions to potential tourists. Place branding is becoming a domain attracting growing scholars' attention (Konecnik Ruzzier and de Chernatony, 2013). Scholars agree that achieving to transmit clear and consistent messages to the different groups of customers, the place must differentiate from other destinations by creating a brand that would emphasize the characteristics of its identity (Konecnik Ruzzier and de Chernatony, 2013).

Literature analysis shows that in order to brand a place, the same methods and tools as used for branding consumer goods and services can be used (Caldwell and Freire, 2004). According to S. Same (2014), in the tourism market competition is tough and differentiation is crucial; therefore, place marketing and branding are measures used to create a positive image of the place. However, even being associated with many benefits, it is still difficult to provide place branding successfully (Florek and Conejo, 2007). M. Konecnik Ruzzier and L. de Chernatony (2013) emphasize that place branding studies should investigate place brands in a framework of commerce, public policy, culture, and regarding historical perspective. However, the premise can be made that places are different; therefore, different marketing measures have to be used based on their category. E. Jermolajeva and I. Petrova (2007) classify places into few categories: a group of countries in the world, a country, a region in a country or a separate city. While analyzing place branding, G. Szondi (2007) separates the concepts of 'destination branding' and 'country branding'. As the aim of 'destination branding' is attracting visitors and reinforce tourism, the 'country branding' stands for promotion economic, commercial, and political interests of the country in its domestic and foreign markets. J. Nadeau et al. (2008) proposes that developments in product-country image can contribute significantly to the tourism destination image. Therefore, the country brand reflecting the country image can be considered as a component of branding the destination. We hypothesize:

H₁: Country's touristic image is directly affected by its commercial, economic, and political images.

M. Kavaratzis (2009) emphasizes that place branding is mainly based on the visual branding elements: a logotype is created, the slogan is adjusted, and the advertising campaign encompassing visual elements is created. Q. Li et al. (2016) emphasize the existence of a wide body of studies regarding visual processing behavior of consumers, because visuals are important in research for their influence on tourists' decision making and behavior (Nadeau et al., 2008). In this regard, the visual attractiveness of country logotype might be considered as an important aspect in country branding. If considering country branding from corporate marketing perspective, corporate visual identity encompasses a name, logotype, typography, color, slogan, and additional graphic design elements (Boltuis et al., 2015).

M. Tero (2012) considers the name as the most important element of a brand. Here emerges one of the greatest differences between country branding and product branding. In case of product failure in the market, company can rename it to become successful. However, in the case of country branding, a brand name is constant – it cannot be changed to be more attractive. L. A. Cai (2002) emphasizes the absence of the name in the studies of destination image, explaining the latter lack by inability of changing it (i.e., country name). M. Florek and F. Conejo (2007) add that developing countries have more challenges in building and developing their brands due to being poorly known by tourists, and the awareness of the country may have an

impact on visual attention. Considering the latter result, we hypothesize:

H₂: More visual attention will be attracted by the logotypes of developed and larger developing countries if compared to small developing countries.

J. Nadeau et al. (2008) propose that images are simplifications of more complex ideas: they are formed by consumer beliefs, attitudes, and impressions about an object. R. van der Lans et al. (2009) propose that “design is a language that communicates to consumers and others, independent of verbal information”. B. J. Phillips et al. (2014) approach brand visual identity as the brand's face; and in order to create clear brand identity emphasizing its richness, it is necessary to define a unique set of associations (Ghodeswar, 2008). M. Konecnik Ruzzier and L. de Chernatony (2013) emphasize that historically, functional attributes (i.e., the environmental beauty, infrastructural advancements, etc.) of a place were considered in marketing strategies; however, contemporary place marketing strategies have been addressing emotional and experiential appeals of a place. J. Datzira-Masip and A. Poluzzi (2014) argue that brand identification with only its name, logo and slogan is not enough; therefore, functional elements might stay evident in case of combination with invisible (but even more important) features like values and benefits that characterize the brand personality. Thus, latter elements have to be reflected in the image – logotype. R. Herstein and R. Berger (2013) add: “country branding by its very nature should be based on non-tangible (representational) aspects, whereas regions and cities should be based on tangible aspects”. Considering the latter

mentioned, it is recommended emphasizing emotional elements for country branding, on the other hand when branding regions and cities, functional elements must be defined (Caldwell and Freire, 2004). Emotional attributes representing a place are related to the feature self-expression sought by tourists, and functional attributes encompass the utilitarian aspects related to a place. Assuming that images are viewed as an antecedent of tourist behavior forming perception of a place (Nadeau et al., 2008), the third hypothesis is formed:

H₃: Less visual attention will be attracted by the logotypes having a visual association with a country if compared to logotypes without a visual association with it.

Slogan is the third of the main elements encompassed in a country logotype. D. B. Klenosky and R. E. Gitelson (1997) consider the choice of slogan to be of high importance, because of its representational nature. According to R. Kuvykaitė and I. Kerbelytė (2008) the slogan is used to emphasize some exclusive activities of the country, the national peculiarities, or exceptional geographical location. In order to attract several target groups, more than one slogan can be created. On the other hand, having a slogan is only a recommendation. We hypothesize:

H₄: Slogans encompassing logotypes attract more visual attention than the slogan-free logotypes.

W. Bolhuis et al. (2015) as an important aspect of the logotype name color. Colors affect and evoke consumer's emotions (Patil, 2012). Properly selected colors and their combinations help attracting consumer attention, improve

the level of impulsive buying behavior, while inappropriately selected colors can decline impulsive buying behavior, and damage the image of the brand (Pilelienė, Grigaliūnaitė, Stakauskaitė, 2016). Moreover, certain objects might be associated with some particular color; therefore, the recall is encouraged (Kimura et al., 2013). For example, the colors appearing on a flag of some country can evoke an association with the country. According to D. Patil (2012), color temperature is important: warm colors stimulate action, on the opposite – cool colors emphasize passiveness, and achromatic colors (black and white) are neutral. M. Tero (2012) argues that logotypes formed of achromatic contrast on a colored background are well-noticed. Moreover, written text is perceived in the left hemisphere of the brain, and the color is processed by the right one; therefore, combining words and colors will result in higher attention, recall, and recognition of the logotype (Patil, 2012). This leads to rising the hypotheses:

H₅₁: More visual attention will be attracted by the logotypes using warm color spectrum if compared to those using cool colors.

H₅₂: More visual attention will be attracted by logotypes using colors if compared to the achromatic logotypes.

The next important aspect of the logotype is typography used in it (Zaichowsky, 2010). According to M. Tero (2012), shaped and sophisticated typeface used in logotype makes it more memorable. This enables hypothesizing:

H₆: More visual attention will attract logotypes with shaped and sophisticated typefaces if compared to logotypes with conventional typefaces.

Graphic elements used in logotypes enable distinguishing the brand from others (Tero, 2012). Consumers pay attention to content distributed by brands (Israfilzade and Baghirova, 2022). Different arrangements of elements and variations in their amount create complexity of the logotype, emphasizing heterogeneous nature of elements and design ornateness (van der Lans et al., 2009). We hypothesize:

H₇: More visual attention will be attracted by the complex logotypes (encompassing many different graphic elements) if compared to the simple logotypes.

Theoretical discussion emphasizes the importance of each element of the logotype; moreover, each element brings its own contribution to the logotype. However, the compositions of latter elements in logotypes are often varying. In a framework of current research, the logotypes were decomposed into the elements, and then the logotypes encompassing necessary elements were chosen to measure the impact of every single element of logotype visual attention.

Research methodology

In order to support the hypothesis H₁, the questionnaire considering different images of the European countries in terms of their economic, commercial, political, and touristic situations was composed and given for evaluation of participants. Respondents were asked to evaluate the touristic image (endogenous variable) and the political, commercial, economic images (exogenous variables) of each European country. The Likert scale using

5-point evaluation (where '1' reflected a completely negative opinion, and '5' reflected a completely positive opinion) was chosen to use in the questionnaire. The type of sample was simple random; and the sample size was 179. The survey took part in Lithuania. 114 females and 65 males participated in the survey; 128 participants were at the age group of 20-29 years; 51 participants indicated the group of 30-35 years. The statistical analysis of data gathered during the survey was provided using SPSS Statistics v.20, SmartPLS V.3 (Ringle et al., 2014) and Matlab R2012b software packages.

A. H. Alsharif et al. (2021) emphasize that many scientists' choice of providing consumer behavior research applying self-report-based methods has recently shifted to neurophysiological and physiological tools. As the best tool to measure consumer visual attention, eye-tracking was chosen for the research. Physiological tools such as eye-tracking allow tracking such physiological reactions of consumers as visual fixation, eye movements and saccades at the moment of purchase (Pilelienė, Alsharif, Alharbi, 2022). According to F. Guo et al. (2018), eye movements reflect cognitive and emotional processing; therefore, it is a suitable measure for detecting one's attention. The eye-tracking system was used for experiment in this study. R. Pieters et al. (2002) emphasize that eye fixations at the area of interest (AOI) indicate the visual attention evoked by the information. Based on the fact that people have clear vision during eye fixations (but not during the saccades) and on the object of this research, the accumulated duration of participants' eye fixations on chosen country logotypes was measured.

The logotypes were aggregated into the groups based on the presence / absence of selected attributes.

Eye-tracking is widely used in marketing for assessing the visual attention attracted by different objects. However, the method is still rarely used in tourism research. For example, Q. Li et al. (2016) applied this tool to assess the visual attention toward photographs accompanied with text used in tourism industry; J. Hernández-Méndez and F. Muñoz-Leiva (2015) investigated the most effective type of online advertising for tourism. However, no study regarding country logotype visual attractiveness was found.

During the experiment, different European countries' logotypes were combined into groups, and the groups were demonstrated for participants. Every participant has viewed all the same logotypes, only the order of them differed (in order to minimize as much as possible the influence of reading patterns). According to R. B. Bausell and Y. F. Li (2002), A. Bojko (2013), Q. Li et al. (2016), the minimum sample size for this kind of experiments to obtain reliable results may not be less than 30 participants. Thus, the sample size for the experiment was 30 (24 female and 6 males; 26 participants indicated the age group of 20–29 and four – at 30–35 years). Participants were chosen to be right-handed, their vision was normal or normal-to-corrected, and their participation in the experiment was voluntary (no payment or other reward was offered).

For the experiment, according to the attributes tested by the hypotheses H2–H7, selected logotype groups were presented on screen of computer with a resolution of 1366x768 pixels. Each group

of logotypes represented a particular attribute, (i.e., if the attribute is logotype complexity, then 5 complex and 5 simple country logotypes are presented on the screen at the same time in the random order; and such design is applied for each of the analyzed attributes). Matlab R2012b software package was used to demonstrate computer-generated groups of logotypes (random order for each participant) on screen. Each picture containing 10 logotypes was presented for the participants for 2 seconds in order to capture the visual attention dependent on the visual attributes before the recognition of familiar logotypes (when the less time is allowed to see the pictures, then the more physical attributes of the pictures drive visual attention). To avoid the possible effect of the last presented picture on the trajectory of gaze, the interstimulus (black screen) was shown between the pictures for two seconds.

A mobile video-based eye-tracking system (Tobii Eye-Tracking Glasses) recording monocular gaze data from the right eye at a sampling rate of 30 Hz and the accuracy of 0.5° were used for the research. The system camera's recording resolution is 640x480 pixels; and the recording angles are horizontal maximum 56° and vertical maximum 40°. A standard nine-point calibration procedure was performed with each participant to ensure the accuracy of results. To analyze the recorded data, software by Tobii Studio 3.2.3 was used. The duration of participants' fixations within an AOI was determined by calculating mean and standard deviations. The AOIs in this case were the areas of logotypes emphasizing the same attribute, e.g., all the complex logotypes composed one AOI and all the

simple logotypes composed the second AOI; thus, all the analyzed attributes had two AOIs each. In order to support the research hypotheses, comparison of mean durations of fixations on different AOIs (for each attribute characterizing country logotype AOI was different) was provided.

Research results and hypotheses testing

In order to test the hypothesis H_1 , stating that ‘Country’s touristic image is directly affected by its commercial, economic, and political images’, we conducted a linear regression analysis (Table 1). As it can be seen, consumer valuations of commercial and political images of a country can be characterized by a positive, statistically significant ($p < 0.05$) direct impact of an average strength on country’s touristic image. The coefficient of determination (R^2) equals to 32.4 percent. Such

value of R^2 is considered as sufficient in this case, because touristic image is influenced by many factors that are not the object of this research; moreover, J. F. Hair, C. M. Ringle, and M. Sarstedt (2011) stated that R^2 close to 0.25 can be regarded as high in consumer behavior studies. Despite this, an economic image of a country was found to have no statistically significant ($p > 0.05$) direct impact on the touristic image of a country. Consequently, **hypothesis H_1 is partially supported**, because only two (political and commercial) of three hypothesized image components had a direct impact on the touristic image of a country.

Moreover, the research result analysis (Wilcoxon signed-rank test is used as the Post Hoc test, see Table 2) revealed the statistically significant differences in evaluation positiveness of touristic images of developed countries ($Z = 5.798$; $p < 0.05$) if compared to the larger developing countries and small developing countries ($Z = 5.886$; $p < 0.05$); also,

Table 1. Linear regression coefficients (dependent variable: touristic image)

Model	Unstandardized Coefficients		Standardized Coefficients	T Statistics	p-value
	B	Std. Error	Beta		
Constant	1.019	0.327	-	3.119	0.002
Economic	-0.051	0.096	-0.039	-0.529	0.597
Political	0.414	0.091	0.334	4.523	0.000
Commercial	0.412	0.076	0.377	5.428	0.000

Table 2. Wilcoxon signed-rank test

Statistics	Large developing – Developed	Small developing – Developed	Small developing – Large developing
Z	-5.798	-5.886	-4.098
p-value	0.000	0.000	0.000

considering small developing countries, their touristic images were statistically significantly better ($Z = 4.098$; $p < 0.05$) if compared to larger developing countries.

The analysis of all fixations duration within an AOI regarding logotypes of small developing, larger developing and developed countries revealed that logotypes of small developing countries attracted 44.5 percent of participants' total viewing time to the screen presenting all three kinds of logotypes in a random order at the same time (logotypes of small developing, larger developing and developed countries), while logotypes of larger developing countries attracted 10.9 percent of participants' total viewing time. Finally, developed countries' logotypes attracted 19.1 percent of the total participants' viewing time.

In order to test the hypothesis H_2 , stating that *'More visual attention will be attracted by the logotypes of developed and larger developing countries if compared to small developing countries'*, Friedman test was applied (data distribution: non-normal; samples: three dependent). As latter test revealed the existence statistically significant ($p < 0.05$) differences between logotypes' viewing time, Wilcoxon signed-rank test was used as the Post Hoc test (see Table 3). The analysis of the results of this test allows **rejecting**

the hypothesis H_2 , because logotypes of small developing countries attracted statistically significantly higher visual attention if compared to the logotypes of developed countries and larger developing countries. Moreover, developed countries' logotypes attracted statistically significantly more visual attention if compared to larger developing countries' logotypes. Thus, it could be stated that logotypes of small developing countries get most visual attention, and larger developing countries' logotypes get least visual attention. Consequently, small developing countries' logotypes attracted more visual attention if compared to the developed countries' logotypes, but the developed countries' touristic images were evaluated higher than the touristic images of small developing countries. Furthermore, larger developing countries' logotypes attracted lowest visual attention and their tourist image was evaluated worst. An assumption could be made that logotypes of small developing countries are less known than those of developed countries; hence they attract more visual attention, as novel objects tend to attract visual attention more than familiar objects.

In the rest of the hypotheses visual attributes of logotypes (slogan, font, complexity, association, color spectrum,

Table 3. Friedman and Wilcoxon signed-rank tests

Friedman Test		Chi-Square	df	p-value
		37.077	2	0.000
Wilcoxon signed-rank test	Statistics	Large developing – Developed	Small developing – Developed	Small developing – Large developing
	Z	-2.526	-3.984	-4.787
	p-value	0.012	0.000	0.000

color) are analyzed. Average total fixation duration time (s) to the logotypes emphasizing a specific attribute is depicted in Table 4 below. As provided in the table, higher average total fixation duration corresponds to the logotypes with written slogans, using shaped fonts, complex, without visual association to the country, cool color spectrum and colorful.

In order to analyze whether statistically significant differences in the viewing time of the logotypes emphasizing different attributes existed, we applied Wilcoxon signed-rank test (samples:

two dependents; data distribution: non-normal). Table 5 presents the results of the test: **hypothesis H_3** , stating that ‘*Less visual attention will be attracted by the logotypes having a visual association with a country if compared to logotypes without a visual association with it*’, **is supported**: statistically significantly less visual attention was attracted by logotypes having visual association with a country ($Z = -2.069$; $p < 0.05$) if compared to logotypes without a visual association with it. Countries’ logotypes without a visual association resulted in 51.5 per cent of total viewing time to the screen

Table 4. Average total fixation duration time(s) to the logotypes emphasizing specific attribute

Attribute of logotype	Specification	Average total fixation duration (s)	Standard deviation
Slogan	With slogan	0.94	0.45
	Without slogan	0.81	0.52
Font	Using letters with shapes	1.21	0.34
	Simple fonts	0.64	0.5
Complexity	Complex	1.09	0.53
	Simple	0.58	0.46
Association	With association	0.7	0.41
	Without association	1.03	0.58
Color spectrum	Hot	0.76	0.45
	Cold	0.99	0.41
Color	Colorful	1.04	0.46
	Black and white	0.51	0.34

Table 5. Wilcoxon signed-rank test

Statistics	With slogan – Without one	Using letters with shapes – Simple font	Simple – Complex	No association - With association	Cold spectrum – Hot spectrum	Black and white – Colorful
Z	-1.019	-3.799	-2.565	-2.069	-1.513	-4.186
p-value	0.308	0.000	0.010	0.039	0.130	0.000

presenting both kinds of logotypes in a random order at the same time, while countries' logotypes having visual association with them attracted 35.1 percent of participants' total viewing time.

Hypothesis H₄, stating that '*Slogans encompassing logotypes attract more visual attention than the slogan-free logotypes*', **was rejected**. The research result analysis revealed that logotypes with written slogans attracted 46.7 percent of participants' total viewing time to both kinds of logotypes, while logotypes without slogans attracted 40.5 percent of participants' total viewing time. However, the difference in participants' viewing time to the logotypes with and without written slogans was not statistically significant ($Z = -1.019$; $p > 0.05$), thus it could be stated that when seeking to attract visual attention, slogan of the logotype is not considered in this context; hence each country can decide whether to use the slogan in the logotype or not without taking risk to minimize the tourists' visual attention.

Hypothesis H₅₁, stating that '*More visual attention will be attracted by the logotypes using warm color spectrum if compared to those using cool colors*', **was rejected**. Even though the warm color spectrum logotypes attracted 38.2 percent of participants' total viewing time; the logotypes with a cool color spectrum attracted 49.5 percent of participants' total viewing time to the screen presenting both kinds of these logotypes at the same time, the difference was not statistically significant ($Z = -1.513$; $p > 0.05$), thus country's selected color spectrum in the logotype does not influence tourists' visual attention toward it.

Hypothesis H₅₂, stating that '*More visual attention will be attracted by logotypes using colors if compared to the achromatic logotypes*', **was supported**. Colorful logotypes attracted 51.9 percent of participants' total viewing time, while those in black and white attracted 25.5 percent of participants' total viewing time. The difference was statistically significant ($Z = -4.186$; $p < 0.05$); hence there is a higher possibility to attract tourists' visual attention to the country's logotype, when its logotype is colorful.

Hypothesis H₆, stating that '*More visual attention will attract logotypes with shaped and sophisticated typefaces if compared to logotypes with conventional typefaces*', **was supported**. The analysis of the research results revealed that simple fonts attract statistically significantly less visual attention if compared to those using shaped and sophisticated typefaces ($Z = -3.799$; $p < 0.05$). Logotypes using shaped and sophisticated typefaces attracted 60.3 percent of participants' total viewing time; logotypes using simple fonts attracted 32.1 percent of participants' total viewing time.

Hypothesis H₇, stating that '*More visual attention will be attracted by the complex logotypes if compared to the simple logotypes*', **was supported**, because the difference in participants' viewing time toward these two kinds of logotypes is statistically significant ($Z = -2.565$; $p < 0.05$). Complex logotypes attracted 54.5 percent of total viewing time of participants, while simple logotypes attracted 29.1 percent of participants' total viewing time.

The hypothesis testing results are generalized in Table 6 below.

Consequently, the analysis the elements of country logotypes and their combinations attracting most visual attention, enables providing guidelines for country logotype creators. In order to attract consumer visual attention, a country logotype must follow four main conditions:

- A visual association with a country must be avoided;
- Colors (of any color temperature) must be used;
- Complexity must be achieved by encompassing many different graphic elements;
- Shaped and sophisticated typefaces must be used.

Additional considerations regarding the category of a country are as follows:

- **Developed country.** The touristic image of countries attached to this category is good, however, less visual attention is attracted by their logotypes. The recommendation might be provided to reconsider the logotype in accordance with the guidelines provided. Countries already having a good image might invest more into its representation in the logotype. Therefore, a good image and visually attractive logotype would evoke a synergy effect in tourism attraction.
- **Larger developing country.** The touristic image of countries belonging to

Table 6. Results of hypothesis testing (statistically significant results)

No.	Result	Substantiation
H ₁	Partially supported	- Commercial image and political image influence touristic image (R ² = 0.324). - Economic image does not affect touristic image.
H ₂	Rejected	- Small developing countries' logotypes attracted most visual attention (44.5% of total viewing time) - Larger developing countries' logotypes attracted least visual attention (10.9% of total viewing time). - Developed countries' logotypes attracted average visual attention (19.1% of total viewing time)
H ₃	Supported	- Logotypes visually not associated to a country attract more visual attention (51.5% of total viewing time) - Logotypes visually associated to a country attract less visual attention (35.1% of total viewing time).
H ₄	Rejected	- No statistically significant difference in visual attention was found.
H ₅₁	Rejected	- No statistically significant difference in visual attention was found.
H ₅₂	Supported	- Colorful logotypes attract more visual attention (51.9% of total viewing time) - Black and white logotypes attract less visual attention (25.5% of total viewing time).
H ₆	Supported	- Logotypes with shaped and sophisticated typefaces attract more visual attention (60.3% of total viewing time) - Logotypes with conventional typefaces attract less visual attention (32.1% of total viewing time).
H ₇	Supported	- Complex logotypes encompassing many different graphic elements attract more visual attention (54.5% of total viewing time) - Simple logotypes attract less visual attention (29.1% of total viewing time).

this category poor (worst of all the three categories analyzed), and their logotypes attract least visual attention. Being big and having a poor image puts the latter category of countries in the worst situation. It might be assumed that there is a correlation between the size of the country and tourist awareness about it (requires empiric substantiation by further research). For this category of countries, it is recommended redesigning their logotypes strictly following the guidelines provided to their highest extent. Also, before introducing the newly created logotype, its visual attractiveness must be tested to achieve the best results.

- **Small developing country.** The touristic image of latter countries is poor;

however, their logotypes attract most visual attention. For the latter category of countries, it is recommended reconsider the investments into their touristic image; thus, they will not only be visibly, but also mentally attractive.

The model and conclusions

The model of country logotype visual attractiveness is composed based on the hypotheses testing results (Figure 1). The model encompasses four visual elements found crucial to reach country logotype's visual attractiveness, i.e.: associations, complexity, colors, and fonts. All the distinguished elements must be managed together, to reach the best possible result.

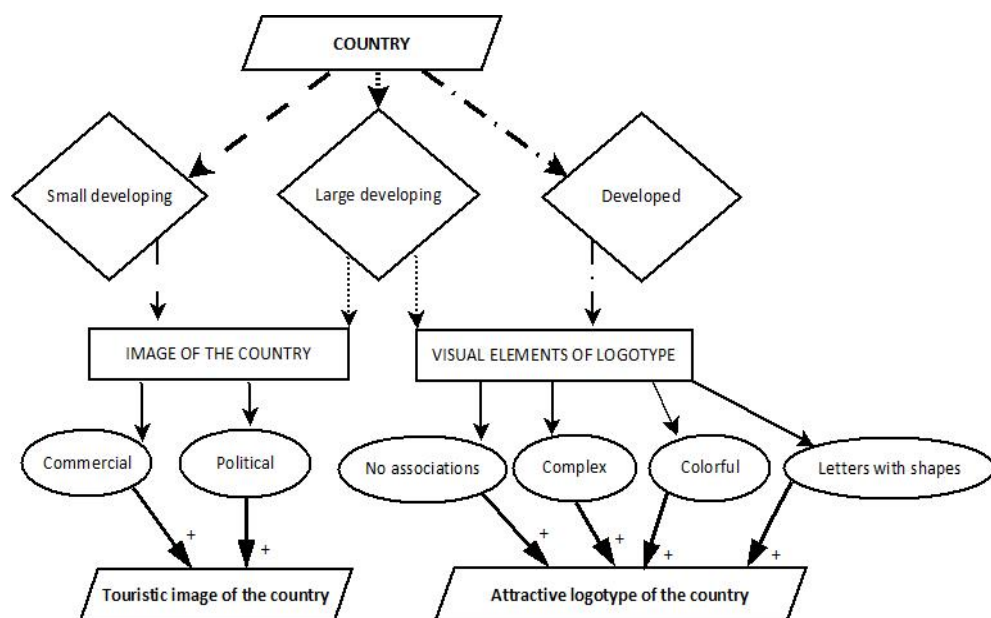


Fig. 1. Country logotype visual attractiveness model

Based on the results, for the small developing countries it is worth allocating their budgets regarding the improvement of image (commercial and /or political). The developed countries can be characterized by a better touristic image; therefore, attention must be paid to logotype improvements. Large developing countries must reconsider the touristic image being created and visual their logotype attractiveness.

The research is limited to a general model of country logotype visual attractiveness. The aim of this study was to assess the effect of different combinations of country logotype elements on visual attention thus forming the model. During the research, the possible impact of

personal, demographic, social, cultural characteristics on consumer perception of visual elements and visual attention was not assessed. Also, the familiarity with the countries and logotypes was not evaluated and considered as having no impact the research results. The impact of latter dimensions on visual attention could be the object of further research and general model's developments.

Acknowledgement

This research was funded by a grant (No. MIP-098/2014) from the Research Council of Lithuania.

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The paper submitted: March 16, 2023

Prepared for publication: August 20, 2023

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ŠALIES LOGOTIPO VIZUALINIS PATRAUKLUMAS: ŽVILGSNIO SEKIMU PAGRĮSTAS MODELIS

Santrauka

Turizmas yra laikomas viena sparčiausiai besivystančių paslaugų sektoriaus sričių visame pasaulyje, taip pat viena pagrindinių socialinės ir ekonominės pažangos varomųjų jėgų. Šiuolaikinė turizmo rinka pasižymi sparčiai augančia konkurencija tarp valstybių, kuri yra neatsiejama nuo marketingo veiklų. Siekdamas pritraukti lankytojų ir turistų, daugelis šalių, miestų ir regionų kuria vietovės marketingo ir prekių ženklo strategijas. Vietovės marketingas dažnai vykdomas grindžiant tradicinius marketingo metodus ir įrankius. Siekdamos užimti savo pozicijas turizmo industrijoje, šalys taiko tarptautinio marketingo strategijas, siekdamos sukurti poziciją vartotojų sąmonėje ir tapti matomos bei patrauklios pasauliniu mastu. Taigi šalies prekių ženklo kūrimo veiklą skatina diferencijavimo poreikis. Vietovės sąmoningai naudoja kūrybinius prekių ženklo kūrimo metodus, kad sustiprintų savo konkurencinius pranašumus turistams. Šalys kuria, plėtoja ir perkuria savo prekių

ženklus, siekdamos užimti matomas ir išskirtines pozicijas turistų sąmonėje.

Šiandieninė aplinka vis labiau orientuota į vizualumą. Logotipai laikomi pagrindiniu įmonės vizualinio identiteto komponentu, todėl naudojami teigiamoms emocijoms sužadinti, prasmės perteikimui ar įmonės bei prekių ženklo pripažinimui sustiprinti. Šalys siekia ieškoti su vietove susijusių simbolių ir juos taikyti, kad pasauliniam vartotojui perteiktų kai kurias išskirtines ir unikalias vietovės savybes, o šis procesas labai panašus į įmonių vykdomą marketingo komunikaciją. Prekių ženklo kūrimo sistemoje svarbiausi yra trys specifiniai elementai: prekių pavadinimas, jo grafinis elementas ir šūkis. Grindžiant idėją, kad vietovė gali būti laikoma produktu, juos turėtų apimti ir vietovės logotipas. Šalies atveju prekių ženklo pavadinimas būtų šalies pavadinimas, o vizualiniam patrauklumui sužadinti galima daryti variacijas su grafiniais elementais ir šūkiu. Šalies

marketingo ir prekių ženklo kūrimo sistemoje logotipo poveikis gali būti kitoks, palyginti su bendroju prekių ir paslaugų marketingu. Todėl naudojami logotipo elementai ir skirtingi jų deriniai gali sukelti skirtingas vartotojų reakcijas, skirtingai patraukdami vizualinį dėmesį. Vizualinis dėmesys plačiai analizuojamas turizmo srityje, pabrėžiant būtinybę giliau tirti vartotojų elgseną, susijusią su vaizdine medžiaga. Straipsnyje nagrinėjama aktuali mokslinė ir vadybinė problema: kaip pritraukti vartotojų dėmesį į šalies logotipą, naudojant skirtingus jo elementų derinius. Tyrimo tikslas – atskleisti šalies logotipo vizualinio patrauklumo aspektus, įvertinant skirtingų šalies logotipo elementų kombinacijų įtaką vizualiniam dėmesiui. Sprendžiant mokslinę problemą ir pasiekus tikslą, straipsnio indėlis – sudarytas šalies logotipo vizualinio patrauklumo modelis, paremtas kombinuotais metodais: žvilgsnio sekimu ir apklausa.

Atliekant tyrimą, keltos septynios hipotezės, kurių pavirtinimas / atmetimas lėmė kuriamo modelio sandarą. Tyrimo metu šalys buvo suskirstytos į tris kategorijas: mažos besivystančios, didelės besivystančios ir išsivysčiusios, darant prielaidą, kad šalies dydis ir išsivystymo lygis gali turėti įtakos jos įvaizdžiui bei logotipo vizualiniam

patrauklumui. Siūlomas modelis apima keturis vaizdinius elementus, kurie yra labai svarbūs norint pasiekti šalies logotipo vizualinį patrauklumą: asociacijas, sudėtingumą, spalvas ir šriftus. Visi nustatyti elementai turi būti valdomi kartu, kad būtų pasiektas geriausias rezultatas. Remiantis tyrimo rezultatais, mažoms besivystančioms šalims rekomenduojama skirti biudžeto dalį įvaizdžiui (komerciniam ir / arba politiniam) gerinti. Išsivysčiusios šalys pasižymi geresniu turistiniu įvaizdžiu, todėl reikia skirti dėmesį logotipo tobulinimui. Didelėms besivystančioms šalims siūloma persvarstyti kuriamą turistinį įvaizdį ir vizualinį logotipo patrauklumą.

Tyrimo pagrindu sudarytas bendrasis šalies logotipo vizualinio patrauklumo modelis, įvertinantis skirtingų šalies logotipo elementų kombinacijų poveikį vizualiniam dėmesiui. Tyrimo metu nebuvo įvertinta galima asmeninių, demografinių, socialinių, kultūrinių savybių įtaka vartotojo vizualinių elementų suvokimui ir vizualiniam dėmesiui. Šalių ir logotipų pažinimas nebuvo vertinamas, bet laikomas neturinčiu įtakos tyrimo rezultatams. Pastarųjų dimensijų įtaka vizualiniam dėmesiui galėtų būti tolesnių tyrimų ir siūlomo modelio tobulinimo objektas.

