

THE INTERGROUP HETEROGENEITY OF BRAND VALUE ATTRIBUTES – CASE STUDY OF CAR BRANDS

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Abstract: The brand value represents a relevant part of the value of the entire company. With a successful brand value, the company can achieve higher profits and brand awareness and improve the overall reputation of the company. Increasing brand value can create a strong relationship between the brand and customers, strengthening competitive advantage over other brands. The above also applies to car brands. The recent period has been difficult for carmakers, largely affected by the coronavirus crisis, which has caused dramatic relative declines in global sales. Although estimates of sales developments in the automotive industry are slightly optimistic, to gain an overview between competing brands and thus advantage, it will be helpful to know the brand attributes and their impact on the perceived value of car brands. The main aim of the paper has been to identify relevant attributes of the value of selected brands in the category of car brands as a prospective source of competitiveness. To find out the brand preference in the automotive industry and to identify the relevant attributes of the brand with a significant impact on the perceived value of car brands, a survey was conducted during the second quarter of 2023 among Slovak consumers, and multiple regression analyses were performed. Based on the research outcomes, it has been found that in the case of all selected car brands, modernity is the dominant attribute of brand value, followed by image, quality, and creative advertising. These findings have great significance not only for the practice of brand value building and management in the automotive industry but also for further research on brand value. Marketing managers should revise their orientation on modernity after reconsidering the identity and historical background of the car brand.

Key words: global brand, automotive sector, brand value, brand attributes, competitiveness, brand preferences

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Introduction

In addition to the coronavirus crisis, the automotive industry faces many economic and social challenges, such as climate change, growing urbanization, revolutionary technologies, globalization, and information technologies that permeate all areas of people's lives. This sector must adapt to changing conditions and turn these challenges into opportunities. Consumer demand for car brands is changing, with innovative solutions in the environmental field, electrification, low-carbon powertrains, etc. (Miklosik et al., 2021; Drożdż, 2019), having an increasing impact on consumer preferences (Ralević et al., 2020). New players outside the industry are constantly entering the automotive sector (Lazarević et al., 2020). Therefore, in order to remain competitive, it will be necessary for the brand in the automotive industry to adapt quickly to the challenges posed by globalization (Stacho et al., 2021), changing mobility patterns, digitalization, and consumer expectations (Hitka et al., 2021). By addressing new global challenges and recognizing attributes that significantly impact brand value subjectively perceived by consumers, car brands could strengthen their position in ranking the most valuable brands. In this context, the research objective of the paper was to identify relevant attributes of the value of selected brands in the category of car brands as a prospective source of competitiveness in the automotive industry. For this study, to find out the brand preference in the automotive industry and to identify the relevant attributes of the brand with a significant impact on the perceived value of car brands, a survey was conducted among Slovak consumers on a sample of 900 respondents during the second quarter of 2023. Subsequently, multiple regression analysis was performed in this study to identify the relevant attributes of the brand with a significant impact on the perceived value of car brands as an important competitive advantage. Based on the research outcomes, it has been found that in the case of all selected car brands, modernity is the dominant attribute of brand value, followed by image, quality, and creative advertising. This study makes a significant contribution to the research of brand value attributes in the category of car brands and provides novel and high-impact information for scientific studies focused on attributes of car brands as a prospective source of competitiveness in the automotive industry. These findings also have great significance for the practice of brand value building and management in the automotive industry.

Literature Review

Brand preferences reflect the desire of consumers to use a particular branded product, even though there are equally available alternatives with the same price (Vartiak, 2021; Gómez-Rico et al., 2023), and are also crucial for brands in the automotive industry because it provides an indicator of their customers' loyalty, the success of their marketing tactics, and the strength of their brand value. Therefore, It is possible to argue that brand preferences are closely related to brand loyalty (Jurikova et al., 2021). In this context, many academics have focused their research on the issue of

brand attributes as a significant element of brand preferences and brand value building. Brand attributes are the tools that define and differentiate the brand. Most strong brands include multiple attributes, and the goal of brand management is to find a suitable combination of these brand attributes that together will create more value in the eyes of consumers (Kotler and Keller, 2013). Kotler and Keller (2013) present six criteria for selecting brand attributes: memorability, meaningfulness, likability, portability, adaptability and protectability. In addition to the above, Keller (2013) lists brand names, URLs, logos and symbols, representatives, slogans, jingles, and packaging among brand attributes. These allow the product to create a certain personality or voice so as to maximize the value of the brand. They try to evoke positive feelings and experiences with the product or brand in order to be able to place it in a special place in the minds of consumers and thus promote brand awareness. Thus, the brand value may be reflected in the consumer recognition of the logo or other visual elements, in the language associations of the brand created by the consumer's perception of quality and value with other brand attributes. When measuring the brand value, it is possible to use quantitative indicators, such as profit margins and market quantities (Caha, 2018; Dacko-Pikiewicz, 2019).

Over the years, several authors have dealt with the issue of brand attributes as a part of brand value. Mizik and Jacobson (2008) dealt with five brand attributes from the view of brand valuation: differentiation, relevance, esteem, knowledge, and energy. The emotional relationship between the consumer and brand influenced by the power of brand attribute associations has been investigated by several authors (Rajagopal et al., 2019; Tofighi et al., 2020). Brand attributes represent a significant element of brand value building and management. This is evident, especially in the case of luxury brands (Tynan et al., 2010; Liu et al., 2012; Pourazad et al., 2019; Bishnoi and Singh, 2021; Petraviciute et al., 2021). From the viewpoint of consumers' behavior, car brands are the typical similar mechanism of buying decision-making for luxury brands. As a breakthrough, Francioni et al. (2021) examined the influence of brand attributes on brand addiction in the context of consumers' behavior. Their results show the significant impact of brand attributes such as self-expressiveness, innovativeness, and authenticity on brand addiction. The perspective of consumers' behavior is crucial in the research by Lee et al. (2021), which focused on comparing and alignability of brand attributes in a competitive environment. In accordance with the provided literature, the individual brand attributes that can significantly influence brand preferences include 1) image, 2) quality, 3) popularity, 4) modernity, and 5) creative advertising. Taking these factors and their impact on brand preferences into account when creating a brand's marketing strategy will be very helpful in gaining customers' loyalty. A detailed analysis of customers' preferences can provide valuable data that are necessary for the offer to satisfy customers' needs. In general, knowing the brand preferences represents the key factor for brands that want to create loyal customers from their target segment. Without a strong brand value and awareness, products will not be sufficiently visible among competing products.

Although many academics have focused their research on the issue of brand attributes as a significant element of brand preferences and brand value building, not enough specific research has been realized to determine the importance of brand attributes on brand preferences in the automotive industry, for this reason, the paper aims to identify relevant attributes of the value of selected brands in the category of car brands as the important factor of competitiveness in the automotive industry. To achieve the primary goal of the paper, based on the theoretical background and survey results, research hypotheses were formulated and subsequently verified.

Research Methodology and Data

The main aim was to identify relevant attributes of the value of selected brands in the category of car brands as the important factor of competitiveness in the automotive industry. For the purposes of this study, primary data were obtained. The survey was conducted on a sample of 900 respondents during the second quarter of 2023. The data had to be reduced as several respondents could not express their subjective attitudes to some of the questions in the questionnaire. The resulting adjusted sample consisted of 861 respondents. The questionnaire has been composed of two parts: 1) about the socio-demographic profile of respondents and 2) about brand preference in the automotive industry and expected attributes as aspects of brand value sources. Based on the number of frequencies of all socio-demographic categories, it can be concluded that the representation of individual traits in the context of the entire population, and with such a large sample size, the distribution of the sample approximates a normal distribution, which can be proved by a central limit theorem (Kwak and Kim, 2017). The data may, therefore, be considered suitable for further statistical investigation. To find out the aspect of “brand preferences,” respondents were asked how much they preferred a branded product over a non-branded product. To identify the relevant attributes of the brand with a significant impact on the perceived value of car brands as the important competitive advantage, it was asked to what extent respondents expect the presence of the attribute from the branded product (car). The attributes examined were as follows: Awaiting image making from a branded product, Awaiting quality from a branded product, Awaiting popularity from a branded product, Awaiting modernity from a branded product, and Awaiting creative advertising from a branded product. The respondents could express their attitude using a 5-point scale, where 1 was very weak, and 5 was very strong expectation, respectively preferences. The data thus obtained are discrete quantitative variables that can acquire a finite or countable number of values (Berk, 2003; Anderson, 2004). Respondents were also asked which car brand comes to mind in the subconscious first to compare the results between the individual car brands. The analysis of this study included the first 10 car brands from the top global brands of the automotive sector, according to Interbrand 2023.

A multiple regression analysis was performed in this study to identify the brand's relevant attributes that significantly impact the perceived value of car brands as an

important competitive advantage. Multiple linear regression is a statistical technique used to obtain more information about the relationship between independent (predictor) variables and dependent (criterion) variables (Cohen et al., 2003). The multiple regression model is

$$E(Y|(x_1, \dots, x_k)) = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_kx_k \quad (1)$$

Where, $\beta_0, \beta_1, \dots, \beta_k$ are unknown regression parameters that determine the functional relationship on which the model is linear. Their values are estimated from n consecutive observations. Thus, n independent observations of the variable Y and the chosen explanatory variables $x_j, j = 1, \dots, k$ determine the whole multiple regression model, where for the result of the i -th observation, $i = 1, \dots, n$ holds

$$Y_i = \beta_0 + \beta_1x_{i1} + \beta_2x_{i2} + \dots + \beta_kx_{ik} + \varepsilon_i, \quad (2)$$

Where, x_{1j}, \dots, x_{nj} represent the i -th values of the explanatory variables, and ε_i is a random error in the i -th observation (Kahane, 2001).

In Figure 1, there is a diagram of the regression model to visualize the proposed predictive relationships. The model is based on several assumptions. Generally, brand attributes have been considered a significant element of brand value building and management (Rajagopal, 2019; Tofighi et al., 2020; Rup et al., 2021). Based on previous research, there are interrelationships between individual brand attributes, which have created a latent variable (factor) (Kliestikova et al., 2019; Majerova et al., 2020; Gajanova et al., 2021).

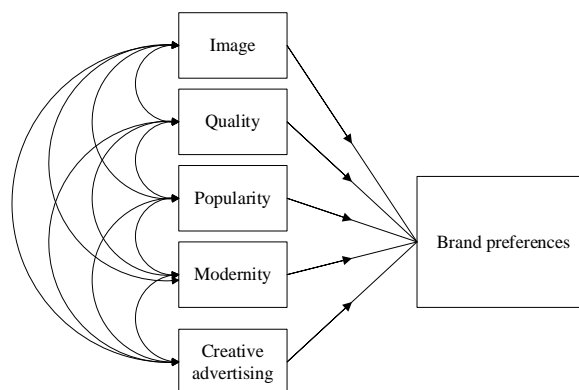


Figure 1: Diagram of the regression model

Source: Own elaboration

Based on the above model, it is possible to determine the main null hypothesis of a multiple regression. There will be no significant prediction of brand preferences based on image, quality, popularity, modernity, and creative advertising. In a multiple regression, there is also a null hypothesis for each x_{1j}, \dots, x_{nj} variable,

meaning that adding that x_{1j}, \dots, x_{nj} variable to the multiple regression does not improve the fit of the multiple regression equation any more than expected by chance. So, the partial null hypotheses are as follows: 1) *In the presence of the others, there will be no significant prediction of Brand preferences by Image.* 2) *In the presence of the others, there will be no significant prediction of Brand preferences by Quality.* 3) *In the presence of the others, there will be no significant prediction of Brand preferences by Popularity.* 4) *In the presence of the others, there will be no significant prediction of Brand preferences by Modernity.* 5) *In the presence of others, there will be no significant prediction of Brand preferences by Creative advertising.*

Research Results and Discussion

For the necessary data it was carrying out a multiple regression with brand attributes a) image, b) quality, c) popularity, d) modernity, and e) creative advertising as predictors (independent variables) of brand preferences (dependent variable) for every single global brand of the automotive sector from the top 10 by Interbrand 2023. Multiple linear regression was performed using the IBM SPSS statistical program.

For evaluating the omnibus effect of the independent variables on the dependent variable, the output in Table 1 and Table 2 is useful. Both outputs show the results of all 10 models based on examining the data of the respondents according to the brand car preference.

Table 1 contains the Multiple Correlation (Multiple R) between the set of independent variables and the dependent variable. (In effect, it is the correlation between the fitted Y (i.e., \hat{Y}) values and the actual Y values): $corr(Y, \hat{Y})$. The coefficient of determination (R-square) is the square of the multiple correlation and reflects the proportion of variation in Y accounted for by fitted Y (i.e., \hat{Y}). The analysis of variance is used to test the statistical significance of the R-square value in the Model Summary table. The null hypothesis is that the population R-square is zero (Crowson, 2019).

Table 1. Model Summary. Source: own research

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Audi	0.401	0.160	0.132	1.02511
BMW	0.264	0.070	0.044	1.01937
Ford	0.585	0.343	0.300	0.79965
Honda	0.788	0.621	0.565	0.56987
Hyundai	0.675	0.455	0.387	0.85671
Mercedes	0.684	0.468	0.437	0.88349
Porsche	0.823	0.677	0.610	0.50844
Tesla	0.730	0.533	0.403	0.86015
Toyota	0.532	0.283	0.188	0.96343
VW	0.404	0.163	0.137	0.97654

Note: Predictors: (Constant), Creative Advertising, Quality, Image, Modernity and Popularity

Table 2 contains the results of the variance analysis, which tests the suitability of the model used for all ten car brands.

Table 2. ANOVA^a. Source: own research

Model		Sum of Squares	df	Mean Square	F	Sig.
Audi	Regression	29.526	5	5.905	5.619	0.000
	Residual	154.474	147	1.051		
	Total	184.000	152			
BMW	Regression	13.977	5	2.795	2.690	0.023
	Residual	186.002	179	1.039		
	Total	199.978	184			
Ford	Regression	25.654	5	5.131	8.024	0.000
	Residual	49.237	77	0.639		
	Total	74.892	82			
Honda	Regression	18.058	5	3.612	11.121	0.000
	Residual	11.042	34	0.325		
	Total	29.100	39			
Hyundai	Regression	24.555	5	4.911	6.691	0.000
	Residual	29.358	40	0.734		
	Total	53.913	45			
Mercedes	Regression	58.378	5	11.676	14.958	0.000
	Residual	66.347	85	0.781		
	Total	124.725	90			

Porsche	Regression	12.996	5	2.599	10.054	0.000
	Residual	6.204	24	0.259		
	Total	19.200	29			
Tesla	Regression	15.182	5	3.036	4.104	0.012
	Residual	13.318	18	0.740		
	Total	28.500	23			
Toyota	Regression	13.911	5	2.782	2.997	0.022
	Residual	35.271	38	0.928		
	Total	49.182	43			
Volkswagen	Regression	29.585	5	5.917	6.205	0.000
	Residual	151.627	159	0.954		
	Total	181.212	164			

Note: a. Dependent Variable: Brand Preferences

b. Predictors: (Constant), Creative Advertising, Quality, Image, Modernity, Popularity

The ANOVA results indicate statistical significance, because [F(5.619)= 5.905, $p < 0.05$]; [F(2.690)= 2.795, $p < 0.05$]; [F(8.024)= 5.131, $p < 0.05$]; [F(11.121)= 3.612, $p < 0.05$]; [F(6.691)= 4.911, $p < 0.05$]; [F(14.958)= 11.676, $p < 0.05$]; [F(10.054)= 2.599, $p < 0.05$]; [F(4.104)= 3.036, $p < 0.05$]; [F(2.997)= 2.782, $p < 0.05$]; [F(6.205)= 5.917, $p < 0.05$]. This suggests that the population R-square is significantly greater than zero. The null hypothesis can be rejected, which means that the model was chosen properly for each brand analysed because there is a significant prediction of Brand preferences by Image, Quality, Popularity, Modernity, and Creative advertising. Table 3 shows the output of the regression analysis. This part of the output is suitable for interpreting the results. The null hypotheses tested in this analysis relate to the significance of the locating constant and regression coefficients, with the null hypothesis asserting the insignificance of the relevant coefficient and the alternative hypothesis's significance (Csete and Sztabo, 2014). P-values (Values) will be used to evaluate these claims.

Table 3. Coefficients of multiple regression analysis. Source: own research

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Audi	(Constant)	1.101	0.447		2.465	0.015
	Image	0.016	0.085	0.017	0.182	0.856
	Quality	0.079	0.115	0.065	0.685	0.494
	Popularity	-0.056	0.104	-0.056	-0.539	0.591
	Modernity	0.281	0.099	0.269	2.847	0.005
	Creative Advertising	0.192	0.085	0.211	2.261	0.025

BMW	(Constant)	1.987	0.370		5.371	0.000
	Image	0.029	0.082	0.033	0.350	0.727
	Quality	-0.047	0.102	-0.049	-0.465	0.643
	Popularity	-0.097	0.088	-0.107	-1.106	0.270
	Modernity	0.306	0.094	0.296	3.248	0.001
	Creative Advertising	0.045	0.074	0.052	0.604	0.546
Ford	(Constant)	0.389	0.425		0.915	0.367
	Image	0.185	0.142	0.208	1.309	0.199
	Quality	-0.142	0.132	-0.198	-1.075	0.290
	Popularity	0.003	0.115	0.004	0.030	0.976
	Modernity	0.590	0.164	0.670	3.591	0.001
	Creative Advertising	0.109	0.101	0.143	1.082	0.287
Honda	(Constant)	0.312	0.402		0.776	0.443
	Image	0.296	0.121	0.343	2.457	0.019
	Quality	-0.120	0.125	-0.167	-0.958	0.345
	Popularity	-0.024	0.109	-0.030	-0.218	0.829
	Modernity	0.522	0.152	0.593	3.427	0.002
	Creative Advertising	0.104	0.093	0.136	1.119	0.271
Hyundai	(Constant)	0.732	0.571		1.282	0.207
	Image	0.434	0.142	0.469	3.045	0.004
	Quality	0.022	0.111	0.027	0.198	0.844
	Popularity	-0.144	0.115	-0.170	-1.250	0.219
	Modernity	0.294	0.140	0.326	2.100	0.042
	Creative Advertising	-0.017	0.142	-0.018	-0.119	0.906
Mercedes	(Constant)	-0.098	0.437		-0.224	0.823
	Image	-0.083	0.090	-0.080	-0.926	0.357
	Quality	0.247	0.112	0.228	2.212	0.030
	Popularity	0.019	0.089	0.021	0.216	0.830
	Modernity	0.260	0.118	0.245	2.204	0.030
	Creative Advertising	0.422	0.108	0.392	3.906	0.000
Porsche	(Constant)	-0.456	0.621		-0.735	0.470
	Image	0.115	0.079	0.227	1.451	0.160
	Quality	0.346	0.127	0.423	2.730	0.012
	Popularity	0.110	0.093	0.205	1.182	0.249
	Modernity	0.485	0.171	0.435	2.828	0.009
	Creative Advertising	-0.138	0.139	-0.202	-0.989	0.332

Tesla	(Constant)	-0.015	0.918		-0.017	0.987
	Image	0.278	0.159	0.326	1.742	0.099
	Quality	0.026	0.189	0.028	0.140	0.890
	Popularity	0.042	0.215	0.044	0.193	0.849
	Modernity	0.575	0.196	0.548	2.934	0.009
	Creative Advertising	0.028	0.146	0.037	0.191	0.850
Toyota	(Constant)	0.607	0.722		0.841	0.406
	Image	0.226	0.137	0.256	1.654	0.106
	Quality	0.127	0.167	0.125	0.761	0.451
	Popularity	0.164	0.166	0.179	0.989	0.329
	Modernity	0.325	0.154	0.324	2.117	0.041
	Creative Advertising	-0.262	0.151	-0.308	-1.733	0.091
VW	(Constant)	1.204	0.437		2.758	0.006
	Image	0.003	0.068	0.003	0.038	0.970
	Quality	0.305	0.097	0.250	3.154	0.002
	Popularity	-0.091	0.082	-0.100	-1.108	0.270
	Modernity	0.231	0.076	0.281	3.024	0.003
	Creative Advertising	0.039	0.069	0.048	0.564	0.574

Assuming $H_0: \beta_k = 0$, $H_A: \beta_k \neq 0$ for not all independent variables, then it can be said that brand attributes a) image, b) quality, c) popularity, d) modernity, and e) creative advertising emerged as significant predictors of brand preferences only in some cases. This means that established null partial hypotheses were rejected only in some cases. These are highlighted in the Table 3. All significant independent variables were positive predictors.

The main findings of our research are as follows. There is great variability in the number of significant independent variables and the strength of significance of individual independent variables as predictors of brand preferences (dependent variable) in models according to car brand. In terms of number, the models confirmed the significance of at most three independent variables (predictors of brand preferences) for the Mercedes car brand, but in some cases (BMW, Ford, Tesla and Toyota), only one significant variable (predictor) was detected in the whole model. It has always been a variable of Modernity. This variable proved to be statistically significant in all models examined. In contrast, the popularity variable was not statistically significant in either model. The strength of the measure of association of the individual independent variables as predictors of brand preferences is also marked in Table 3, where the order of significance is determined based on the standardized beta coefficients. The results of the realized research verify the original assumption that there is a divergence in the importance of brand value attributes in

the scope of the selected brand category. The dominance of modernity as the relevant attribute of brand value in the case of all selected car brands is in contrast with so far formulated branding theory aimed at reaching sustainable competitiveness. The original branding schism between quality and image has been radically weakened. While the image is joint with modernity relevant for Honda and Hyundai, in the case of quality, it is Mercedes, Porsche and Volkswagen. Another attribute – creative advertising, has been present in the case of Audi and Mercedes. Modernity is the only dominant attribute of brand value for all other analysed brands – BMW, Ford, Tesla, and Toyota. When comparing these results with the ranking of selected brands in Interbrand 2023, no obvious relationship could indicate the combination of attributes as optimal because there was an increase in the value of all brands except Honda. On the other hand, the importance of modernity in reaching competitiveness lies in the recognized brand value sources, which is verified by the practice of the enormous increase in Tesla's brand value. Surprisingly, there is also no obvious similarity of brand value attributes between traditionally similar car brands. For example, a combination of quality and modernity is relevant for a very heterogeneous group of brands where luxury and middle-class car brands have been included. From this perspective, the analysis of brand value sources in the scope of the product portfolio of car brands could explain this phenomenon. The possible reason for such a heterogeneous composition of brand value attributes could be the strength of the brand and its identity. It means that the uniform approach is not functional due to the existing image of the brand and the deeply rooted and established brand position in the consumer's mind. Thus, modernity should also fit the traditional framework of brand perception. Otherwise, the branding concept could fail. This is obvious in the example of Tesla. It is a strongly innovative and modern car brand where all innovations are highly welcome, and there is no connection with the brand's history. However, in the case of brands like Mercedes, which was established in 1926, the portfolio of brand value attributes is much bigger. Thus, modernity has to be reached, but not autonomously. On the contrary, the imperative of efficient branding lies in the synergic effect of modernity with creative advertising and quality. While quality is a traditional connection with the brand in the mind of the consumer, which has been created based on the brand's history, the attribute of creative advertising can be perceived from a wider perspective as an indicator of the need for communication between brand and consumer. If this attribute were absent, consumers would perceive the brand as unreachable, and its value could be harmed. Traditionally, branding patterns have been formulated based on perceived brand value sources. First, sectoral and, later, regional have been developed to cover more and more exceptions that have been created in the practice. However, neither this approach has led to the successful creation of an omnipotent brand elixir, which would be able to influence beneficiary the brand value. Previously, it has been detected that 1) brand value sources differ in the process of brand value building and management (Majerova, 2020) and 2) there is a divergence in brand value sources when analyzing brand loyalty presence vs. absence

(Kliestikova et al., 2019). In accordance with these findings, this research has been based on the presumption that internal variability of brand value sources in certain product categories exists. Similarly, Zhou (2020) has supposed internal variability of brand value sources in the case of fashion brands where the impact of the COVID-19 pandemic has been the main impulse to apply such an approach when realizing that despite brands doing the same, their value changed differently. However, his approach has focused strictly on the pandemic consequences and heterogeneous group of brand value sources – quality, innovation, rapid response, and social responsibility.

Generally, brand attributes are considered significant elements of brand value building and management in the process of reaching competitiveness (Rajagopal, 2019; Tofighi et al., 2020). Since 2019, the importance of brand attributes research has significantly grown in the scientific environment. This importance has also been proved in luxury products (Pourazad et al., 2019). This category of products has a quasi-identical mechanism of buying decision-making, such as car brands. In accordance with them, the present research has also detected the need for an individual approach to the theory and practice of brand value building and management based on regional divergences. Similarly, also Filieri et al. (2019), Melovic et al. (2021), and Swoboda and Sinning (2021) highlight the regionalisation of branding patterns and avoidance of their uniformity regardless of national specifics. While specific research has not been realized on the importance of attributes of car brands in specific national conditions, the results of own research cannot be compared in detail with the current state of knowledge in this area worldwide. However, based on this fact, it can be stated that the scientific gap has been fulfilled successfully, and the platform for further research in the scope of the order or attributes as prospective brand value sources in the case of car brands has been created. Through this research, the findings of Francioni et al. (2021) have been proved. They have found that brand characteristics of self-expressiveness, innovativeness, and authenticity positively influence brand addiction. Similarly, in car brands, the most relevant attribute is modernity, which can be unified with innovativeness when a wider perspective of view is applied. The individual attributes with significant impact on brand preferences has been set in accordance with provided literature review as follows: 1) image; 2) quality; 3) popularity; 4) modernity and 5) creative advertising. However, not all of these attributes are discussed individually in the scientific literature. Surprisingly, the critical discussion of the attribute “modernity” which is the most significant among all the analysed attributes, is missing at all. This fact can be partially explained by the fact that this term incorporates innovativeness. While in the scientific literature the attribute innovativeness is analysed individually (Hetet et al., 2020; Lin et al., 2019; Omar et al., 2021), presented research has abandoned this approach. Thus, other aspects like market and consumer trends are also included in attribute modernity. Among them, the green orientation of the brand and the acceptance of generational stratification of the consumers are mostly important. Especially in the case of car brands, green

orientation is traditionally connected with innovativeness. Such an approach was inspired by Lin et al. (2019), who realized the research of green innovativeness, stating that modernity is reached by combining these two attributes. However, these two aspects are not synonyms, and each generation of consumers perceives modernity as a different dimension that is not connected only to innovativeness or green orientation. Thus, when comparing modernity separately with the current research on innovativeness and green orientation, it can be concluded that the dominating position of these attributes has been verified. Similarly, Hussain and Ahmed (2020) also state that former individual analysis of attributes should be replaced by grouping them into major entities, which would cover a wider perspective of the selected phenomenon across market trends and consumer behaviour. Thus, the presented paper can be considered an integrative overview of attributes with a significant impact on brand value subjectively perceived by consumers. While other contemporary scientific papers discuss individual attributes without focusing on mutual connections, this paper fulfils the gap in this area by identifying relevant sources of competitiveness in this aspect. However, there are certain limits and barriers to the general application of the research outcomes. These mainly consist of the fact that the sample of respondents has been nationally oriented. So, the paper's conclusions are fully applicable only to the Slovak market environment. As it has been previously proved that there are significant divergences in brand value perception among national markets due to the different psychographic profiles of consumers, there is a need to detect relevant brand value attributes on a regional basis. Also, the issue of modernity should be analysed deeply as modernity can also be perceived in different ways due to the psychographic specifics of the market. While some markets are developed and prepared for a certain level of innovativeness transposed to the attribute modernity, there doesn't have to be such a situation in the case of other markets. Similarly, the research should be repeated in the future because of the turbulent pandemic situation, which significantly also influences consumer behaviour. Managerial implications of the results of the research are evident. They are not only general – stating that the individuality of the brand should be considered when applying formulated branding patterns so far, but also individual – identifying dominant brand value attributes relevant to selected brands. In the light and shadow of further research in this area, it would be beneficial to test the impact of brand attribute associations and emotional consumer-brand relationships on the intention to purchase, as has been done by Pourazad et al. (2019). Similarly, it would be useful to focus on the phenomenon of brand addiction as it has been done by Francioni et al. (2021). However, in this case, the outcomes wouldn't be fully comparable as this research works with different terminology of attributes and thus, wider interpretative approach should be applied. Another prospective way of further research in this area lies in the complex analysis of the brand identity pillars and historical background. Thus, it could be detected clusters of brands where similar branding patterns could be applied. On the other hand, the need of individual

approach to the brand has been proved, but on the other hand, such a fragmentation could cause stagnation in branding research.

Conclusion

The paper has aimed to identify relevant attributes of the value of selected brands in the category of car brands as a prospective source of competitiveness. This aim has been set based on identifying a scientific gap indicated in previous research on the variability of brand value sources and unexplained reactions of brand value on the application of established branding patterns. In these cases, neither the acceptance of changed market conditions nor trends in consumer behaviour could reach the expected increase in brand value. Thus, the possibility of intergroup variability of brand value sources has been stated. Own research has been realized during the second quarter of 2023. Based on the research outcomes, our original assumption has been verified. It has been found that in the case of all selected car brands, modernity is the dominant attribute of brand value. In the case of some brands, it has also been followed by image (Honda, Hyundai), quality (Mercedes, Porsche, Volkswagen), and creative advertising (Audi). In the case of Mercedes, a triple structure of relevant brand value has been detected (creative advertisement, modernity, quality). Modernity was not the most relevant brand value attribute in the case of Hyundai and Mercedes. These findings are valuable not only for further research on brand value but also for the practice of brand value building and management. Marketing managers should revise their orientation on modernity after reconsidering the identity and historical background of the car brand. Researchers should focus on verifying research outcomes in the scope of other specific national environments and in the scope of other brand categories where the failure of traditionally applied branding patterns has been detected. However, there are certain limitations to the general applicability of the results. One of them is the need to respect the regional character of the results, and another one is the aspect of modernity and its understanding of the broader perspective of contemporary market trends.

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References

- Anderson, E. B., (2004). Latent regression analysis based on the rating scale model. *Psychological Science*, 46(2), 209-226.
- Berk, R. A., (2003). *Regression analysis: A constructive critique*. Thousand Oaks, CA: Sage Publications.

- Bishnoi, S. K., Singh, S., (2021). A study on consumer buying behaviour for fashion and luxury brands under emotional influence. *Research Journal of Textile and Apparel*, Early Access: 10/2021.
- Caha, Z., (2018). Central Europe: Ethical Overlaps of Environmental and Economic Interests in Coming Years. *Science and Engineering Ethics*, 24(6) 1801–1807.
- Csete, M., Sztabo, M., (2014). How the spatial distribution of the Hungarian TOP 500 companies affects regional development: an examination of income generation at subnational scale. *Regional Statistics*, 4(1), 40-60.
- Cohen, J., Cohen, P., West, S. G. and Aiken, L. S., (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Crowson, M., (2019 July 9). *Multiple regression in SPSS procedures and interpretation* (July 2019) [Video]. YouTube. <https://www.youtube.com/watch?v=W0BwLZv6U10>
- Dacko-Pikiewicz, Z., (2019). Building a family business brand in the context of the concept of stakeholder-oriented value. *Forum Scientiae Oeconomia*, 7(2), 37–51.
- Drożdż, W., (2019). The development of electromobility in Poland. *Virtual Economics*, 2(2), 61–69.
- Filieri, R., Lin, Z., D’Antone, S. and Chatzopoulou, E., (2019). A cultural approach to brand equity: The role of brand mianzi and brand popularity in China. *Journal of Brand Management*, 26(4), 376–394.
- Francioni, B., Curina, I., Hegner, S. M. and Cioppi, M., (2021). Brand addiction: Brand characteristics and psychological outcomes. *Journal of Consumer Marketing*, 38(2), 125–136.
- Gajanova, L., Nadanyiova, M., Majerova, J. and Aljarah, A., (2021). Brand value sources in banking industry. *Polish Journal of Management Studies*, 23(1), 151-171.
- Garbarova, M., Bachanova, P. H. and Vartiak, L., (2017). *Purchasing Behaviour of E-Commerce Customers*. In A. Sujova (Ed.), *Management and Economics in Manufacturing - Global Scientific Conference on Management and Economics in Manufacturing* (pp. 160-165). Zvolen (Slovak Republic)
- Gómez-Rico, M., Molina-Collado, A., Santos-Vijande, M. L., Molina-Collado, M. V. and Imhoff, B., (2023). The role of novel instruments of brand communication and brand image in building consumers’ brand preference and intention to visit wineries. *Current Psychology*, 42(15), 12711-12727.
- Hetet, B., Ackermann, C.-L. and Mathieu, J.-P., (2020). The role of brand innovativeness on attitudes towards new products marketed by the brand. *Journal of Product and Brand Management*, 29(5), 569–581.
- Hitka, M., Štarchoň, P., Lorincová, S. and Caha, Z., (2021). Education as a key in career building. *Journal of Business Economics and Management*, 22(4), 1065-1083.
- Hussain, S., Ahmed, R. R., (2020). Smartphone Buying Behaviors in a Framework of Brand Experience and Brand Equity. *Transformations in Business and Economics*, 19(2), 220–242.
- Jurikova, M., Kocourek, J. and Lizbetinova, L., (2021). Building the prestige of a university as a tool to achieve competitiveness. *Communication Today*, 12(2), 128–144.
- Kahane, L. H., (2001). *Regression basics*. Thousand Oaks, CA: Sage Publications.
- Keller, K. L., (2013). *Strategic Brand Management. Building, Measuring, and Managing Brand Equity*. Edinburg: Pearson.

- Kliestikova, J., Kovacova, M., Krizanova, A., Durana, P. and Nica, E., (2019). Quo Vadis Brand Loyalty? Comparative Study of Perceived Brand Value Sources. *Polish Journal of Management Studies*, 19(1), 190–203.
- Kliestikova, J., Durana, P. and Kovacova, M., (2019). Naked consumer's mind under branded dress. *Central European Business Review*, 8(1), 15-32.
- Kotler, P., Keller, K. L., (2013). *Marketing management*. Praha: Grada Publishing.
- Kwak, S. G., Kim, J. H., (2017). Central limit theorem: The cornerstone of modern statistics. *Korean Journal of Anesthesiology*, 70(2), 144.
- Lazarević, D., Dobrodolac, M., Švadlenka, L. and Stanivuković, B., (2020). A model for business performance improvement: a case of the postal company. *Journal of Business Economics and Management*, 21(2), 564-592.
- Lee, B.-K., Suh, T. and Noh, H.-H., (2021). The effect of attribute alignability on brand evaluation in a competitive context: The moderating role of regulatory mode. *Journal of Consumer Behaviour*, 20(6), 1508-1522.
- Lin, J., Lobo, A. and Leckie, C., (2019). The influence of green brand innovativeness and value perception on brand loyalty: The moderating role of green knowledge. *Journal of Strategic Marketing*, 27(1), 81–95.
- Liu, F., Li, J. Y., Mizerski, D. and Soh, H., (2012). Self-congruity, brand attitude, and brand loyalty: a study on luxury brands. *European Journal of Marketing*, 46(7-8), 922-937.
- Majerova, J., (2020). Monistic Concept of Branding Has Been Broken: How to Guarantee Consistency in Brand Value Management? *Polish Journal of Management Studies*, 22(2), 232–246.
- Melovic, B., Vukcevic, M. and Dabic, M., (2021). The Midas touch of branding: Banks' brand value, intellectual capital and the optimization of the Interbrand methodology. *Journal of Intellectual Capital*, 22(7), 92–120.
- Mizik, N., Jacobson, R., (2008). The Financial Value Impact of Perceptual Brand Attributes. *Journal of Marketing Research*, 45, 15-32.
- Omar, N. A., Kassim, A. S., Shah Alam, S. and Zainol, Z., (2021). Perceived retailer innovativeness and brand equity: Mediation of consumer engagement. *Service Industries Journal*, 41(5–6), 355–381.
- Petraviciute, K., Seinauskiene, B., Rutelione, A. and Krukowski, K., (2021). Linking Luxury Brand Perceived Value, Brand Attachment, and Purchase Intention: The Role of Consumer Vanity. *Sustainability*, 13(12), 6912.
- Pourazad, N., Stocchi, L. and Pare, V., (2019). Brand attribute associations, emotional consumer-brand relationship and evaluation of brand extensions. *Australasian Marketing Journal*, 27(4), 249–260.
- Rajagopal, A., (2019). Exploring behavioral branding: Managing convergence of brand attributes and vogue. *Qualitative Market Research*, 22(3), 344–364.
- Ralević, P., Dobrodolac, M., Švadlenka, L., Šarac, D. and Đurić, D., (2020). Efficiency and productivity analysis of universal service obligation: a case of 29 designated operators in the European countries. *Technological and Economic Development of Economy*, 26(4), 785-807.
- Stacho, Z., Stachová, K., Varečková, Ľ. and Matúšová, J. G., (2021). Direction of businesses operating in Slovakia to develop key managerial competencies. *Production Engineering Archives*, 27(4), 291-295.

- Swoboda, B., Sinning, C., (2021). Endorsement of Global Product Brands by Global Corporate Brands—A Consumer Perspective Across Nations. *Management International Review*, 61(4), 563–598.
- Tofighi, M., Grohmann, B. and Bodur, H. O., (2020). Ethical attribute and brand concept congruity enhances brand evaluations. *European Journal of Marketing*, 54(1), 79–108.
- Tynan, C., McKechnie, S. and Chhuon, C., (2010). Co-creating value for luxury brands. *Journal of Business Research*, 63(11), 1156-1163.
- Vartiak, L., (2021). Describing the knowledge economy level in the Slovak Republic. *International Journal of Law Management and Humanities*, 4(6), 266-272.
- Zhou, C.-L., (2020). On the Sources of Brand Value of Textile Enterprises—Multiple Case Analysis in the Fight against COVID-19. In *Textile Bioengineering and Informatics Symposium* (pp. 390-395).

MIĘDZYGRUPOWA NIERÓWNOMIERNOŚĆ ATRYBUTÓW WARTOŚCI MARKI – STUDIUM PRZYPADKU MAREK SAMOCHODOWYCH

Streszczenie: Wartość marki stanowi istotną część wartości całego przedsiębiorstwa. Dzięki odpowiedniej wartości marki firma może osiągnąć wyższe zyski i świadomość marki oraz poprawić ogólny wizerunek przedsiębiorstwa. Zwiększanie wartości marki może stworzyć silny związek między marką a klientami, wzmacniając przewagę konkurencyjną nad innymi markami. Powyższe dotyczy również marek samochodowych. Ostatni okres był trudny dla producentów samochodów, głównie z powodu kryzysu koronawirusowego, który spowodował dramatyczne względne spadki sprzedaży na całym świecie. Chociaż szacunki dotyczące rozwoju sprzedaży w branży motoryzacyjnej są optymistyczne, aby uzyskać przegląd konkurujących marek i tym samym określić przewagę, pomocne będzie poznanie atrybutów marki i ich wpływu na postrzeganą wartość marek samochodowych. Głównym celem artykułu było zidentyfikowanie istotnych atrybutów wartości wybranych marek w kategorii marek samochodowych jako perspektywicznego źródła konkurencyjności. Aby dowiedzieć się, jakie są preferencje marek w branży motoryzacyjnej i zidentyfikować istotne atrybuty marki z istotnym wpływem na postrzeganą wartość marek samochodowych, przeprowadzono badanie w drugim kwartale 2023 roku wśród słowackich konsumentów, dodatkowo przeprowadzono analizy regresji wielokrotnej. Na podstawie wyników badań stwierdzono, że w przypadku wszystkich wybranych marek samochodów nowoczesność jest dominującym atrybutem wartości marki, a następnie wygląd, jakość i kreatywna reklama. Te wyniki mają dużą wagę nie tylko dla praktyki budowania i zarządzania wartością marki w branży motoryzacyjnej, ale także dla dalszych badań nad wartością marki. Menedżerowie marketingu powinni przeanalizować swoją orientację na nowoczesność po biorąc pod uwagę tożsamość i historię marki samochodowej.

Słowa kluczowe: globalna marka, sektor motoryzacyjny, wartość marki, atrybuty marki, konkurencyjność, preferencje marki