

A study on brand competitiveness: A comparative analysis of European and Korean auto brands in the Russian automotive industry

Han-Sol Lee, S. U. Chernikov, E. A. Degtereva, A. M. Zobov

Peoples' Friendship University of Russia named after Patrice Lumumba,
6, ul. Miklukho-Maklaya, Moscow, 117198, Russian Federation

For citation: Lee, Han-Sol, Chernikov, S. U., Degtereva, E. A. and Zobov, A. M. (2024) 'A study on brand competitiveness: A comparative analysis of European and Korean auto brands in the Russian automotive industry', *St. Petersburg University Journal of Economic Studies*, 40 (1), pp. 58–79.

<https://doi.org/10.21638/spbu05.2024.103>

This study compares brand competitiveness of European and Korean auto brands in the Russian automotive market based on cross-sectional datasets for 42 auto brands in Russia of the year 2022. The econometric models (OLS, WLS, and Robust least squares) are constructed by employing a theoretical frame of Porter's diamond model. The results of the regression analysis allowed us to get to the conclusion that product diversification, accessibility to dealers (or retail shop) and active social media marketing are critical factors to promote auto sales in the Russian market. Based on the comparison, we can draw two important conclusions. First, Korean auto brands are ahead of the European auto brands in value chain management as they have a huge pool of dealers and maximize contact with potential Russian customers. Secondly, the German auto brands lead when it comes to product diversification and social media marketing. However, Korean auto brands are not behind based on those criteria compared to the average European auto brand, and take an above average-middling position. From the outstanding performance of Korean auto brands in the Russian market especially, it seems that securing numerous retail channels is particularly crucial. The results of this study are helpful for national and international automotives companies to create business strategies in the Russian automotive industry.

Keywords: Russian automotive industry, emerging market, competitive advantages, international business, factors of competition, Porter's diamond model, brand analysis, cross-sectional analysis.

Introduction

In the 21st century the image of the Russian car market began to change due to growing oil exports and accompanying consumer wealth increase. Due to a complex of economic and social reasons, Russian local manufacturers decreased the investment into the modernization of brands and manufacturing facilities, which lead to an escalating long-term quality decrease (Gal'perin, 2014). At the same time the customs protection in the internal Russian car market created an artificial price protection for domestic manufacturers. On the one hand, this prevented the domestic manufacturer's bankruptcy and collapse of related industries, saving thousands of jobs. But on the other hand, the situation contributed to the preservation of many negative and non-market factors of local automobile companies, lacking again the possibility and stimulus for large-scale renewal and transition to new technologies. The

outdated design and quality of locally produced cars made the emerging middle class more willing to pay the extra price of imported foreign automobiles. Later Russian entry to the World Trade Organization (WTO) decreased the custom protection of the market, meaning that Russian producers were forced to exist on the domestic market on equal terms with major international competitors (Kalmykov, 2019).

Russia is the 20th and 2nd car importer in the world and Central Eastern Europe (followed by Poland), respectively: its values amounted to 7.999 billion dollars, in 2021¹. During 2021, the Russian car market was showing signs of recovery after a decline caused by the COVID-19 pandemic. According to the Association of European Businesses (AEB), car sales in Russia in the first eight months of 2021 increased by 35.7 % compared to the same period in 2020². Going into 2022, the prospect of growth seemed ever so present but due to known geopolitical events, some manufacturers completely left the market through asset liquidation or by transferring over their businesses to new management. This, however, left the market open to the producers that made the decision to stay as we saw significant growth in market share from both domestic and certain foreign manufacturers, looking to make their stand. In 2021, worldwide car exports amounted to 710.4 billion dollars. 19.6 % of total exported cars were from Germany³. Likewise, the bulk of foreign auto manufacturers are mainly from Germany, France, Italy, and so forth. However, the Korean auto brands stand out on the Russian market ahead of the European one based on the good quality and reasonable price. Korean auto brands, namely, Hyundai and Kia lead in terms of market share in the Russian auto market. According to the AEB's report, in 2022, 687,370 cars were sold in Russia, while Kia (9.62 %) and Hyundai's market shares (7.97 %) were ranked second and third after Lada (27.44 %) in Russia⁴.

Previously, there were studies on the competitiveness of certain auto brands, their industry (for instance, Dixit and Joshi, 2011; Ülengin et al., 2014; Ariffin and Sahid, 2017; Pascoal et al., 2017; Vošta and Kocourek, 2017; Ziling and Yan, 2018), and the dynamics and development trends of the Russian auto market (for instance, Kurilov, 2012; Ajupov et al., 2015; Kurilova and Kurilov, 2016; Alimova, 2017; Zhurova and Moshkova, 2022). However, there have been no comparisons conducted in order to explore European and Korean brands in a market like Russia's. The purpose of this paper is to compare competitiveness between European and Korean auto brands, in the Russian market, as they are the top countries in the world when it comes to car brands and provide practical advice for them. In addition, our study contributes both theoretically and methodologically: the econometric models that estimate the auto brand competitiveness in the Russian market are constructed by employing the theoretical frame of Porter's diamond model.

The remaining parts of our study are composed as follows. Section 2 covers literature review on factors of brand competitiveness and hypothesis development. In section 3, data

¹ World Top Exports. (2023) *Cars & Trucks Exports 2020*. Available at: <https://www.worldstopexports.com> (accessed: 15.04.2023).

² Association of European Business. (2023) *AEB: website*. Available at: <https://aebrus.ru/> (accessed: 15.05.2023).

³ World Top Exports. (2023) *Cars & Trucks Exports 2020*. Available at: <https://www.worldstopexports.com> (accessed: 15.04.2023).

⁴ Association of European Business. (2023) *AEB: website*. Available at: <https://aebrus.ru/> (accessed: 15.05.2023).

and model specifications are provided. Section 4 deals with main results and discussions. Finally, in the conclusion, we offer suggestions of business strategies for European, and Korean auto brands in the Russian market.

1. Literature review

1.1. *Theoretical assessment of competitiveness in industry*

Throughout the changes in socio-economic conditions, economic researchers have attempted to explain the nature of trade advantages for enterprises, industries and countries in different ways. One of the first stages in the evolution of the theory of economic advantages was Smith's theory of absolute advantages, which assigned a key role in their emergence to natural resources. Ricardo and Mill added the factor of production costs to natural resources, which became the basis for the theory of comparative advantages. It was also supplemented by Heckscher, Olin, and Samuelson and began to include the whole set of production factors. Finally, Porter introduced the concept of competitive advantages, referring all the factors of economic relations in general to their sources (Safiullin and Safiullin, 2002).

It can be stated that the explanations of industry competitiveness can be generally divided into sectoral and external, i. e., formed due to the parameters of the socio-economic environment. Industry competitive advantages, in turn, can be divided into those that are formed at the enterprise level and at the industry environment itself, i. e., the level of qualification of professional personnel, infrastructure, availability of demand, etc. Another type of classification is the division of competitiveness into external and internal. External, or international, competitiveness is the success of a product or an economic entity among foreign competitors, the ability to sell on the world market — for example, through the share of exported products of the industry (Shvandar, 2008).

Since the industry is often defined as a set of firms united by one type of activity and having similar resources, the competitiveness of the industry can be considered its ability to effectively manage these resources, introduce innovations, as well as create conditions for the development of firms in the context of certain basic macroeconomic conditions (Akulich, 2011). Complex industries are usually influenced by a whole set of factors of different types. Microeconomic factors affect the industry and its competitiveness through the ability of each individual firm to adapt, introduce innovations, and increase production efficiency. Industry factors include the size of the industry, the level of development of specialized technologies, the complexity of the entry of new players and the stage of its life cycle. Finally, macroeconomic factors are common to all industries and determine the basic conditions for their development — demography, socio-cultural factors, infrastructure of related sectors, and others (Kovalenko, 2013). It is also crucial to emphasize the importance of innovation, which has gained great influence in the last 20 years. It is believed that innovation contributes to the development of intra-industry competition, which indirectly increases the competitiveness of the entire industry through stimulating demand, increasing product quality and production efficiency.

Interestingly, there are several types of approaches to understanding the concept of competitiveness. The latter is determined either statically, i. e., based on the results already achieved by the subject, or dynamically, i. e., based on the potential that will allow the subject to achieve something in the future. In the first case, the real competitiveness is considered — the proper-

ties and achievements already formed at the moment. In the second case, the prospects for further development of the subject, its ability to sustainable growth are determined. Unlike real competitiveness, it takes into account the competition not only with current, but also potential rivals. Quantitative assessment of competitiveness often occurs precisely on the basis of real indicators, which, of course, limits the scope of the study, because such an assessment does not reflect future growth and development opportunities, but, on the other hand, allows you to identify a specific indicator that would best reflect the presence of competitive advantages of the subject. Nevertheless, if the external environment in which the subject operates has a sufficient level of stability and predictability, then effectiveness assessments of previous activities can serve as indicators of future ones (Belkin, Belkina and Vladykina, 2015).

In addition, descriptive or explanatory approaches can be used in the analysis of competitiveness. With a descriptive approach, researchers focus on the highest indicators and economic achievements of the subject, which in this case are an indicator that the subject has a high level of competitiveness. In other words, the entity that has higher economic indicators is more competitive. Obviously, in such a situation, differences in the initial conditions and resources available to each subject, as well as changes in their influence over time, etc., are not taken into account. In the explanatory approach, factors of competitiveness are considered first of all, and on the basis of their comparison, the competitiveness of subjects is assessed.

Moreover, the definition of industry competitiveness can be formulated as the ability to attract new investments in the industry, which seems more consistent with the dynamic nature of competitiveness and the global nature of modern industries (Taranukha, 2017).

Many researchers have developed concepts for a comprehensive assessment of the factors of competitiveness of the industry. One of the most widespread is the “diamond model” developed by Porter, focusing on the international competitiveness of a country or industry. This model allows us to explain why specific countries or sectors have competitive advantages in foreign markets, while others do not. The meaning of Porter’s concept is that all four elements create a national context within which enterprises grow and compete with each other. If the competitive conditions in this situation are favorable, they encourage local companies to continuously innovate and improve themselves. On the national scale, the model structures the competitiveness of a certain country or industry into four interrelated components — “Factor conditions”, “Demand conditions”, “Corporate strategy” and “Supporting industry”. In terms of factorial conditions Porter does not limit the factors available initially, leaving room for adding new ones if the need arises during the production process. This gave rise to a row of research on specific factors influencing different industries, as well as further classifications of key and secondary impacting factors, like introduction of new technologies or resource scarcity. The demand conditions in the model are a determining component for the industry development and include variables of market nature. This approach highlights the requirements imposed by the domestic market for individual companies. The related industries ensure the smooth operation of the research object in question, starting from the supply of equipment and ending with various financial structures and relationships with customers and suppliers. Finally, corporate strategy features affect the efficiency of production and the ability to compete seriously with other firms (Porter, 1990).

After the publication of the diamond model, it was also criticized. One of the points made by critics is the inability of the model to show the impact of national culture and

the role of technology (Oz, 2002). As the model became popular, there has been a lot more criticism over the years of model existence and application, resulting in numerous attempts to upgrade the model in one way or another (Tsiligiris, 2018; Vladoš, 2019; Fang et al., 2018).

Some researchers presented their own methods of assessing industry competitiveness. Oral and Ozkan (1986) in their article apply a model developed for the Industrial Development Bank of Turkey. The studied industries (textile, food and stone industry) in this case are considered as a set of 30 most successful and developed companies-representatives of the industry, 10 companies for each. The paper calculates the actual and potential levels of competitiveness of firms in comparison with their typical foreign competitors in the relevant export markets. Indexes are calculated for each firm based on data collected by the questionnaire method of representatives of the studied companies. The value of the actual or potential competitiveness index greater than one indicates that the firm is more competitive than the competitor with whom the comparison is being made.

Another researcher, Zhang (2014) uses a multiple linear regression model to determine the degree of influence of foreign direct investment (FDI) on the competitiveness of industry in China in a specified period of time. In addition to FDI, the model includes an assessment of the impact of determinants such as human capital, R&D and infrastructure. The dependent variable in this study is determined by the IC (Industrial Competitiveness) index, which is calculated according to the method developed by the United Nations Industrial Development Organization (UNIDO). The index consists of four indicators: value added in the manufacturing industry per capita, exports of industrial products per capita, the share of medium- and high-tech products in the manufacturing industry and the share of exports of medium- and high-tech products in industrial products. The values of each of the four indicators are standardized in the range from zero to one. The IC composite Index is the average of four standardized indicators without assigning weight coefficients.

There are also more specific techniques for both capital-intensive and knowledge-intensive industries, similar to the automotive industry studied in our paper. A good example is the work on assessing the competitiveness of the pharmaceutical industry. For example, in his article Lakner (Lakner et al., 2019) determined the relationship between factors such as R&D costs, the number of patents and the number of scientific publications, and the competitiveness of the sector. He conducted a cointegration analysis of the time series of these factors in several developed countries. It should be noted that in this study, the competitiveness of the pharmaceutical industry is also measured through the use of the Revealed Comparative Advantage index (RCA). This indicator is generally widely recognized and used to analyze the competitiveness of various sectors around the world (Fertö and Hubbard, 2003; Batra and Khan, 2005; Freund and Pierola, 2020).

Thus, a number of studies (Vosta and Kocourek, 2017; Lee, 2017; Szabó et al., 2021; Sandu, 2015) identify various specific factors, such as “financial stability”, “human resource”, and “innovativeness” as having a greater impact on the formation of the competitiveness of passenger car enterprises.

The summary of the literature review on factors of competitiveness is presented in Table 1. Despite the fact that many different approaches proposed in the literature, it seems that in accordance with every research objective the most universal ways to quantify competitiveness remains Porter’s diamond model. We can see that factors of competitiveness asserted in other studies are usually a subset of components of the Porter’s diamond model.

Table 1. Summary of factors of competitiveness based on the literature review

Classification	Study
Factor conditions	Professional personnel and infrastructure (Shvandar, 2008); the size of the industry and the level of development of specialized technologies (Kovalenko, 2013); human capital, R&D and infrastructure (Zhang, 2014); R&D, the number of patents and the number of scientific publications (Lanker et al., 2019); Financial condition, human resource and innovation (Vosta and Kocourek, 2017; Lee, 2017; Szabó et al., 2021; Sandu, 2015)
Demand conditions	Availability of demand (Shvandar, 2008); demography and socio-cultural factors (Kovalenko, 2013)
Related and supporting industries	Infrastructure of related sectors (Kovalenko, 2013)
Firm strategy, structure, and rivalry	Resource management, introduction of innovation and creation of favorable conditions for the firm's growth (Akulich, 2011); the complexity of the entry of new players and the stage of its life cycle (Kovalenko, 2013)

Although the concept is several decades old and the accumulated criticism is substantial, it is still the most robust method of conditionally measuring the individual indicators that demonstrate the success of the industry in comparison, comprehensively. The majority of models developed over the years generally constitute either a partial analysis of competitiveness, focus on specific features of the individual industry, or inhale a large number of additional variables that make appropriate data collection too difficult for consistent application.

The model's comprehensive structure focuses on competitive advantages with integrated and complex analysis, that allows the installation of various basic and associated factors applicable to a variety of objects and situations, which has been proven numerous times by different researchers (Tsai, Chen and Yang, 2021; Castro-González, Peña-Vinces and Guillen, 2016; Harzing and Giroud, 2014; Chung, 2016; Kharub and Sharma, 2016). As the model allows building structured research combining the corporate, industrial and national levels, the authors aimed for an attempt to narrow the analysis to industries competition at a specific country's market. Such analysis is rarely found in literature and presents new theoretical and practical insights.

1.2. Hypothesis development

Over the last several decades, due to globalization and hasty technological advancements, the borders between national and international markets have become vague and companies generally are forced to compete with large established international firms. This challenge greatly impacts the competition environment and in order to survive companies have to apply the efforts to implement strategic management, quality support practices, social media and internet marketing policies, competitive pricing policy, product innovation and customer satisfaction control (Gupta and Nanda, 2015; Chobanyan and Leigh, 2006). The successful application led the company to a sustainable competitive advantage over its competitors on the domestic and international marketplace and provided a higher profit. Studies show that some dimensions of these strategies building on scarcely found resource types are more efficient than others, and innovation capacity is among the list of main competitive drivers (Petrakis, Kostis and Valsamis, 2015):

H1. A company from a nation of higher level in innovation has higher sales.

The relationship between the product price and sales have been one of the pillars of economic theory and Marketing studies for many decades. Multiple studies point out the dramatic impact of brand, product quality and price on sales outcomes of companies (Kukar-Kinney, Ridgwaya and Monroe, 2012; Suardika and Dewi, 2021). The importance of price is so significant in the majority of ordinary product markets, that in the event of price wars even the strongest brands cannot avoid decreasing prices to prevent sales drop (Waiganjo, 2022). This has been made even more apparent especially as the sanctions from 2014 made the value of the Russian currency volatile and local customers became highly sensitive to the price:

H2. The relationship between auto prices and sales is negative.

The product range is an important and an integral part of brand success. The unlimited extension of available products can lead to the loss of perceived brand identity, while deliberate narrowing of available models can result in loss of profit. The balance is rather difficult to find and requires investments into brand management. Research confirms that making an effective brand management system aids companies to perform better than competitors due to sustainable competitive advantages (Santos-Vijande et al., 2013). A brand management system enables to enhance customer's perception on a brand, while from that customers expect a cohesive brand experience by purchasing it. For instance, purchasing a Mercedes Benz does not only give you a functional utility as a transportation, but also make you experience luxurious lifestyles. Customers want to buy the whole values provided by a brand and a strong brand management system strengthen the customer-brand relationship by providing those comprehensive values consistently, which leads to increase in brand loyalty. The car markets however are showing a rather stable amount of model renewal pace⁵, with major car producers having products suitable for almost each segment, and a few luxury independent brands with a very limited range⁶. However, most of the research on car sales factors focuses on major macroeconomic determinants like GDP, interest rate, oil consumption, road mileage, car production volumes or Global Financial Crisis (Makoni and Chikobvu, 2023; Guan, 2023). With regard to available research in the current study the authors aim to check whether the number of car models within a brand impacts the car sales at the market in question:

H3. The relationship between the number of different car model and the sales is uncertain.

The product accessibility has always been an important feature in the business of practically any industry. The car market is no different. Studies show that the dealer network and Internet search are the prime sources of customer-assembled data on car models and brands (Choudhury, Mishra and Mohanty, 2019). Therefore, the point of car sale and associated staff greatly influence the automotive sales and appropriate brand market share. Certainly, studies show that as the customer is getting more technology-savvy in their automotive purchase with more requests for digital experience, the dealer network quality

⁵ Statista. (2023) *Number of new car models offered in the U.S. market from 2000 to 2021*. September 29. Available at: <https://www.statista.com/statistics/200092/total-number-of-car-models-on-the-us-market-since-1990/> (accessed: 25.07.2023).

⁶ DatabaseHub. (2023) *Car Models by Manufacturer*. Available at: <https://www.back4app.com/database/back4app/car-make-model-dataset/ford> (accessed: 25.07.2023).

and equipment should follow (Zolkify, Haron and Hussin, 2018). But despite these 21st century trends, it is the density of brand's dealer network that should have a prevailing effect on the sales on the market:

H4. The accessibility of the auto to the end consumer is positively associated with the sales.

Social media is greatly impacting the consumer behavior in practically all B2C markets, as it has become the most effective modern “word-of-mouth” transition instrument. The negativity waves spread quickly throughout the networks and greatly influence the sales. The automotive market is not different, although the research of direct correlations between the follower opinions in social media and car sales is rather controversial. For example, the volume of online reviews is good for the automotive sales in the long run, but in the short run it is uncertain with lower-sales-volume cars. To the contrary, the larger review volumes aid the sales of already higher-sales-volume cars (Wang et al., 2022). In case of unforeseen negative events social media requires special care from the automotive manufacturers (Wang, Wang and Calantone, 2021). With regards to our research, the authors presume a specific perception model of online car brand followers, which nonetheless can be fostering the car sales if the number of followers is high:

H5. The relationship between sales and the number of followers of the auto brand in social media is positive.

Generally, the research application of Porter's diamond model confirms that ease of doing business greatly improves the relationship between innovation and competitiveness of national industries, due to reduction of barriers within the economic systems (Morano et al., 2023). Moreover, the level of difficulty when it comes to launching a business is affecting the small and medium businesses more, while these companies are more interested in business barriers relief. They are also capable of following the market trends more actively due to higher flexibility (Singh, Garg and Deshmukh, 2008; Kharub and Sharma, 2016). As shown in Figure A1, the structure of enterprises in the automotive industry in

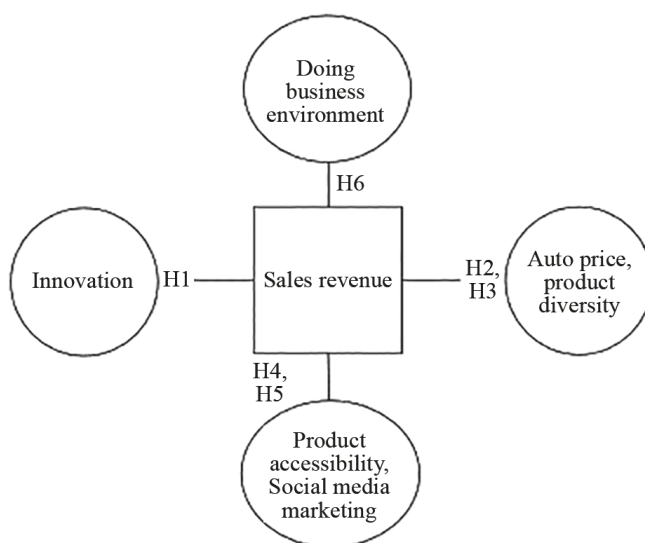


Figure 1. Conceptual framework by employing Porter's diamond model

Russia is quite dynamic: we can see that multiple companies which do not belong to the largest auto group in the world mark high sales units. Korean brands and Lada take the lead in the Russian market and those are apparently smaller in a size compared to major German auto brands. Also, it is expected the growing tendency of Chinese auto brands in the Russian market in the near future due to continuous Sanctions. Focusing the efforts of policymakers on removal of economic and administrative obstacles supports investors in making the most appropriate decisions when choosing the countries in which to invest their resources, thus allowing further production of much more innovative and competitive products with a much higher chance of having sales success overseas:

H6. The brands from the country at where easily starting a business have higher sales.

2. Research objective, methodology and data

42 auto brands⁷ (including 10 European and 3 Korean one), that generated their revenues in Russia in 2022 are selected as a sample in our study according to the AEB reports (2023). While, as multiple variables which can be used in this study are not available because micro-data in Russia are not widely accessible from a single integrated source, it required us to calculate each corporate dataset by hand from the website and made our data confined to be cross-sectional due to the lack of time-series. On the other hand, during the preliminary research, it was revealed that some brands from the same mother group share manufacturing sites and employees (e. g., Chery & Chery Exceed). In this case, we treated them as one brand. Our econometric specifications in the theoretical frame of the Porter's diamond model are as follows:

$$\begin{aligned} \ln(\text{Units})_i &= \beta_0 + \beta_1 \ln(\text{GII})_i + \beta_2 \ln(\text{Prices})_i + \\ &+ \beta_3 \ln(\text{Models})_i + \beta_4 \ln(\text{Dealers})_i + \beta_5 \text{IG}_i + \beta_6 \ln(\text{EDB})_i + \epsilon_i; \end{aligned}$$

$$\begin{aligned} \ln(\text{Share})_i &= \beta_0 + \beta_1 \ln(\text{GII})_i + \beta_2 \ln(\text{Prices})_i + \beta_3 \ln(\text{Models})_i + \\ &+ \beta_4 \ln(\text{Dealers})_i + \beta_5 \text{IG}_i + \beta_6 \ln(\text{EDB})_i + \epsilon_i. \end{aligned}$$

$\ln(\text{Units})_i$ is a logarithm unit of a car sold of a brand i in the Russian market in the year 2022. $\ln(\text{Share})_i$ is a logarithm of the market share (%) of a brand i in the Russian auto market in the year 2022. $\ln(\text{GII})_i$ is a logarithm of global innovation index (GII) of a brand i 's country of origin in the year 2022 and used as a proxy of (advanced) factor conditions. $\ln(\text{Prices})_i$ is the logarithm of the average prices (current, in dollars) of cars that are available in 2022 in the Russian market of a brand i , while $\ln(\text{Models})_i$ is the logarithm of the number of different car models that are available to purchase in 2022 from a brand i in the Russian market (date of access to the site: 02.05.2023), and both variables are used as a proxy of demand conditions. To prevent a potential endogeneity between dependent

⁷ Audi, AvtoVAZ, BMW & Mini, Cadillac, Changan, Chery & CheryExeed, Chevrolet, DFM, Evolute, FAW, Foton, GAC, GAZ LCV, Geely, Genesis, Haval, Hino, Honda, Hyundai, Infiniti, Isuzu, Iveco, Kia, Land Rover & Jaguar, Lifan, Mazda, Mercedes-Benz & Mercedes-Benz LCV, Mitsubishi, Nissan, Omoda, Porsche, Renault, Škoda, Sollers & Ford LCV, Stellantis, Subaru, Suzuki, Toyota & Lexus, UAZ, Volvo, VW Cars & VW Vans, Zotye.

variables and $\ln(\text{Models})_i$, granger causality tests are conducted and it is revealed that $\ln(\text{Units})_i$ and $\ln(\text{Share})_i$ do not granger Granger cause $\ln(\text{Models})_i$.

$\ln(\text{Dealers})_i$ is a logarithm of the number of dealers per a car model in the Russian market to a sell brand i 's auto (date of access to the site: 02.05.2023), while IG_i is the number of the official Russian Instagram* account followers (in million) per a car model of a brand i , and both variables are used as a proxy of related and supporting industries. Between units of car sold and the number of dealers and IG followers, there is no clear causality: dealers (selling points) and IG followers (somehow related to a brand popularity) could have increased due to high car sales or vice-versa. In this sense, we divided the number of dealers and IG followers by the number of car models to make them exogenous to the dependent variable. Also, as our study only deals with the competitiveness in the Russian market, we counted the followers of the official Russian Instagram* account not their international account. For the accurate estimation, we accessed the brands' account on the same date of 19.05.2023. $\ln(\text{EDB})_i$ is a logarithm of the World Bank's ease of doing business index of a brand i 's country of origin (benchmarked to May 2019) and used as a proxy of firm strategy, structure, and rivalry. ϵ_i is an error-term (Table 2).

To prevent the issue of multicollinearity, the VIF test is carried out. The result is presented in Table 3. As the all the variables' $\text{VIF} < 3$, our model is free from multicollinearity.

Summary statistics of the chosen variables in our study are presented in Table 4. In terms of econometric methodology, in addition to the baseline model with the OLS estimator, we further conducted the regression analysis by employing WLS and robust least square (Robust) estimators, which solve the issue of outliers. For the model with the WLS estimator, we weighted inverse standard deviation of $\ln(\text{Models})$, which has the lowest p-value in a correlation between itself and the square of residuals. Although our baseline model shows the constant variance of the residuals, we can see that it has been even improved at the model with the WLS estimator.

3. Results and discussion

3.1. Results

The results of the regression analysis are presented in Table 5. First of all, some important factors to enhance car sales in the Russian market are identified. $\ln(\text{Models})$ is positively correlated with $\ln(\text{Units})$ and $\ln(\text{Share})$ at the 1% significance level (rejection of H3). The results are consistent with different regression estimators. It indicates that diversifying different types of auto models promotes sales of an auto brand in the Russian market. $\ln(\text{Dealers})$ is also positively associated with $\ln(\text{Units})$ and $\ln(\text{Share})$ at the 1% significance level (support of H4). The results are consistent with different regression estimators. It seems that securing numerous stable and varied retail channels is critical for the sales of an automobile on the Russian market, whose territories are vast and where consumers are relatively sparsely located. In the baseline model, IG is positively correlated with $\ln(\text{Units})$ and $\ln(\text{Share})$ at the 1% significance level (support of H5). Its significant and positive impact consistently appears in the WLS and Robust models. This implies that

* Is recognized in Russian Federation as an extremist organization.

Table 2. Variable Definitions and Data Sources

Variable	Notation	Definition	Source
Dependent variable	$Ln(Units)_i$	A logarithm unit of a car sold of a brand i in the Russian market in the year 2022	AEB ¹
Dependent variable	$Ln(Share)_i$	A logarithm of the market share (%) of a brand i in the Russian auto market in the year 2022	AEB ²
Factor conditions	$Ln(GII)_i$	A logarithm of global innovation index (GII) of a brand i 's country of origin in the year 2022	WIPO ³
Demand conditions	$Ln(Prices)_i$	A logarithm of the average prices (current, in dollars) of cars that are available in 2022 in the Russian market of a brand i (accessed to the site on 02.05.2023)	CCarPrices ⁴
	$Ln(Models)_i$	A logarithm of the number of different car model that can be purchased from brand i in 2022 in the Russian market (accessed to the site on 02.05.2023)	CCarPrices ⁵
Related and supporting industries	$Ln(Dealers)_i$	A logarithm of the number of dealers per model in the Russian market to a sell brand i 's auto (accessed to the site on 02.05.2023)	An official Russian website of an auto manufacturer
	IG_i	The number of the official Russian Instagram* account followers (in million) per a car model of a brand i (assessed to the site on 19.05.2023)	A manufacturer's official Russian Instagram* accounts
Firm strategy, structure, and rivalry	$Ln(EDB)_i$	A logarithm of the World Bank's ease of doing business index of a brand i 's country of origin (benchmarked to May 2019)	World Bank ⁶

Notes:

¹ Association of European Business. (2023) *AEB: website*. Available at: <https://aebrus.ru/> (accessed: 15.05.2023).

² Ibid.

³ WIPO. (2023) *Global Innovation Index 2022*. Available at: https://www.wipo.int/global_innovation_index/en/2022/ (accessed: 20.05.2023).

⁴ CCarPrices. (2023) *Latest Car Models in Russia with Prices and Specs*. Available at: <https://www.ccarprice.com/ru/> (accessed: 02.05.2023).

⁵ Ibid.

⁶ World Bank. (2023) *Ease of Doing Business rankings*. Available at: <https://archive.doingbusiness.org/en/rankings> (accessed: 20.05.2023).

Table 3. The results of VIF tests

$Ln(GII)$	$Ln(Prices)$	$Ln(Models)$	$Ln(Dealers)$	IG	$Ln(EDB)$
1.435143	1.581736	2.133477	1.676724	1.065458	1.445011

* Is recognized in Russian Fedearthion as an extremist organization.

Table 4. Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
<i>Ln(Units)</i>	42	7.934523	2.463472	0.000000	12.14762
<i>Ln(Share)</i>	42	-0.900934	2.463472	-8.835458	3.312164
<i>Ln(GII)</i>	42	3.955914	0.168888	3.535145	4.123903
<i>Ln(Prices)</i>	42	12.82583	2.664425	9.217825	20.49390
<i>Ln(Models)</i>	42	2.273420	1.119212	0.000000	5.652489
<i>Ln(Dealers)</i>	42	1.502493	1.667978	-2.656757	4.976734
<i>IG</i>	42	0.008677	0.013427	0.000000	0.068750
<i>Ln(EDB)</i>	42	4.391556	0.044148	4.289089	4.446174

to activate marketing strategies through social media channels significantly contribute to increasing sales of an auto brand on the Russian market. Also, due to the large distances from city to city, each could have their own cultures and tastes. Thereby, providing various selections of models and to advertising through easily accessible social media could be of crucial importance on the Russian market.

On the other hand, the impact of *Ln(GII)* on the sales of an auto brand is rather ambiguous. Its significance does not exist in the baseline model, but appears in the WLS and Robust models with a negative coefficient.

Meanwhile, some variables, namely, *Ln(Prices)* and *Ln(EDB)* turned out to be insignificant. Although, we can see that the coefficient sign of *Ln(Prices)* is negative, indicating that lower prices are better for sales, does not generate a significant p-value. Contrary to our expectation, it was revealed that a low price could be one of the factors to influence consumption, but not a main factor to lead consumption. *Ln(EDB)*, which is an ease of doing business and proxied as a level of market competition of an origin of country, turned out to be insignificant. This can be partially explained by the fact that the auto industry itself has a high threshold. Thereby, a level of competition is relatively low compared to other industries, and that is why it is difficult to become a main factor to lead sales.

Table 6 presents the summary of sings of independent variables in hypothesis and results. Two hypotheses are supported, while the other four hypotheses are rejected. The main factors to promote auto brand competitiveness in the Russian market are summarized by prices, number of models and active social media marketing.

3.2. Discussion and recommendations: The comparison of European and Korean auto brand competitiveness as critical factors in promoting sales in the Russian market

From the regression analysis, three critical factors to promote sales in the Russian market are revealed as follows: the diversity of car models, the accessibility to dealers (or retail shop), and the active marketing in social media. In this section, the competitiveness of European and Korean auto brands in the Russian market will be compared in these three criteria.

Table 5. Regression results

Dependent variable	Ln(Units)			Ln(Share)		
	(1) OLS	(2) WLS	(3) Robust	(4) OLS	(5) WLS	(6) Robust
Constant	22.28528	-2.373022	-15.52170	13.44982	-11.20848	-24.35716
	(31.26622)	(26.20932)	(22.44980)	(31.26622)	(26.20932)	(22.44980)
Ln(GII)	-3.142149	-3.925971**	-3.161431**	-3.142149	-3.925971**	-3.161431**
	(2.034137)	(1.713615)	(1.460553)	(2.034137)	(1.713615)	(1.460553)
Ln (Prices)	-0.091441	-0.008075	-0.041526	-0.091441	-0.008075	-0.041526
	(0.135361)	(0.090396)	(0.097192)	(0.135361)	(0.090396)	(0.097192)
Ln (Models)	1.797227***	1.663352***	1.565118***	1.797227***	1.663352***	1.565118***
	(0.374251)	(0.239812)	(0.235144)	(0.327489)	(0.239812)	(0.235144)
Ln (Dealers)	0.897882***	0.927716***	0.894631***	0.897882***	0.927716***	0.894631***
	(0.222624)	(0.185121)	(0.159848)	(0.222624)	(0.185121)	(0.159848)
IG	60.24190***	48.92780**	71.61093***	60.24190***	48.92780**	71.61093***
	(22.04609)	(20.60029)	(15.82956)	(22.04609)	(20.60029)	(15.82956)
Ln (EDB)	-1.526914	4.644794	7.133393	-1.526914	4.644794	7.133393
	(7.808331)	(6.427513)	(5.606546)	(7.808331)	(6.427513)	(5.606546)
R-squared	0.525721	0.461970	0.493599	0.525721	0.597795	0.493599
BP test (P-value)	0.4141	0.9439	-	0.4141	0.9439	-
Obs.	42	42	42	42	42	42

Note: Standard errors in parentheses: * p < 0.1, ** p < 0.05, and *** p < 0.01.

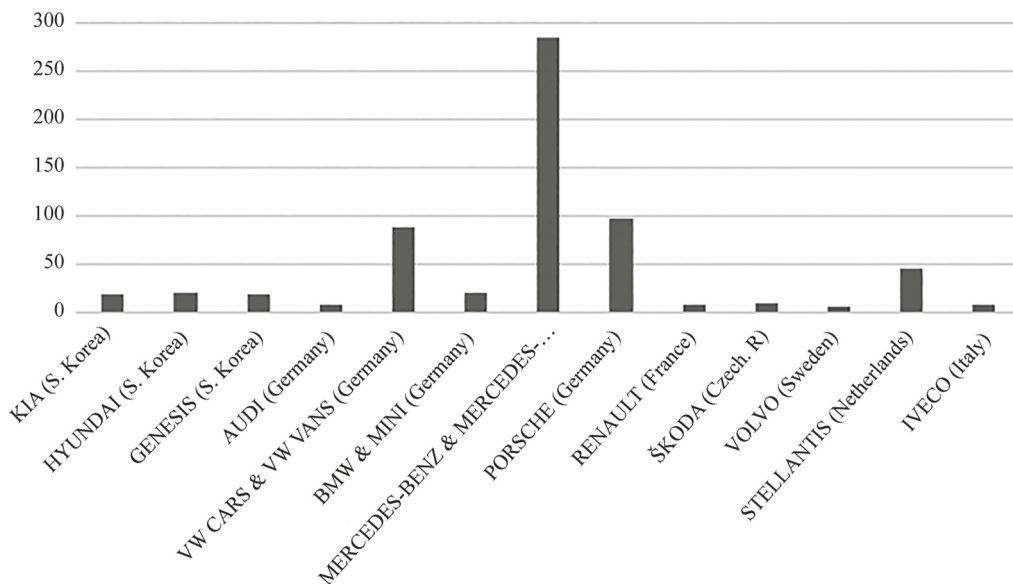


Figure 2. The variety of car models (available in 2022)⁸

Source: See Table 2.

As described in Figure 2, the German auto brands take the lead in the products' diversification. VW Cars & VW Vans, Mercedes-Benz & Mercedes-Benz LCV, and Porsche vigorously expand their product lines and provide diverse selections for customers. However, unlike the other German auto brands, Audi rather takes the product concentration strategies. Korean auto brands take the high-middle position in the product diversification. The average number of models excluding the above three German auto brands among the European and Korean auto brands in 2022 in the Russian market was 16. All three Korean auto brands are above than this level: Hyundai (20), Kia (19), and Genesis (18). It indicates that Korean auto brands are not excessively diversifying their product lines compared to the German auto brands, while they provide a pretty large selection for customers.

On the other hand, from the Figure 3, it is demonstrated that two large Korean auto brands are ahead of the all-European brands in terms of the number of car dealers and enhance the accessibility of customers to their brands. Securing stable and various retail channels is critical for the sales of an auto, particularly, in the Russian market, whose territories are vast and where consumers are relatively sparsely located. The number of car dealers of Kia amounted to 178, while that of Hyundai amounted to 171. As for the German auto brands, they have room for improvement when it comes to increasing contact points with the customers. On average, there are 51 car dealers for the five German auto brands: this is less than $\frac{1}{3}$ of that of Korean auto brands, Kia and Hyundai.

⁸ Models introduced in 2023 are excluded from the tally as our dependent variable of sales units and market share are in 2022.

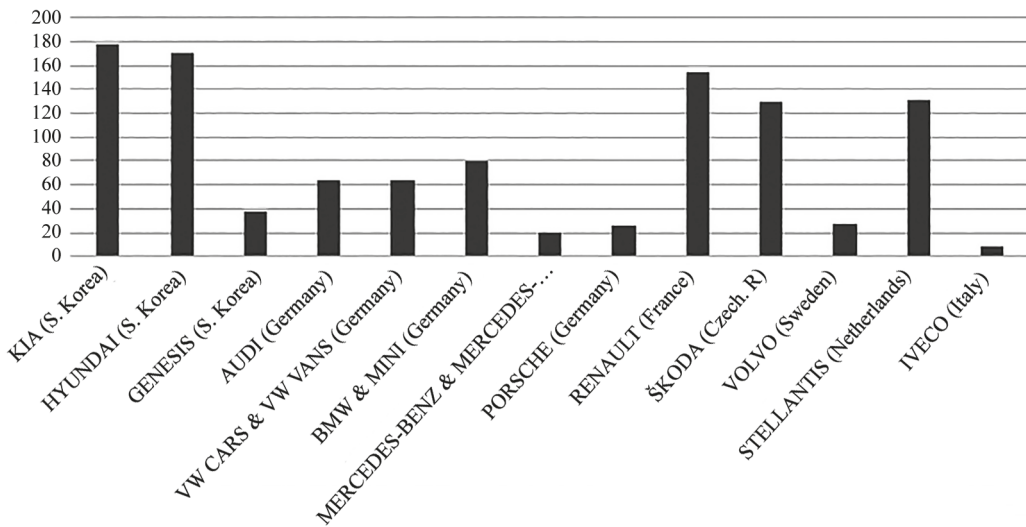


Figure 3. The number of car dealers
Source: See Table 2.

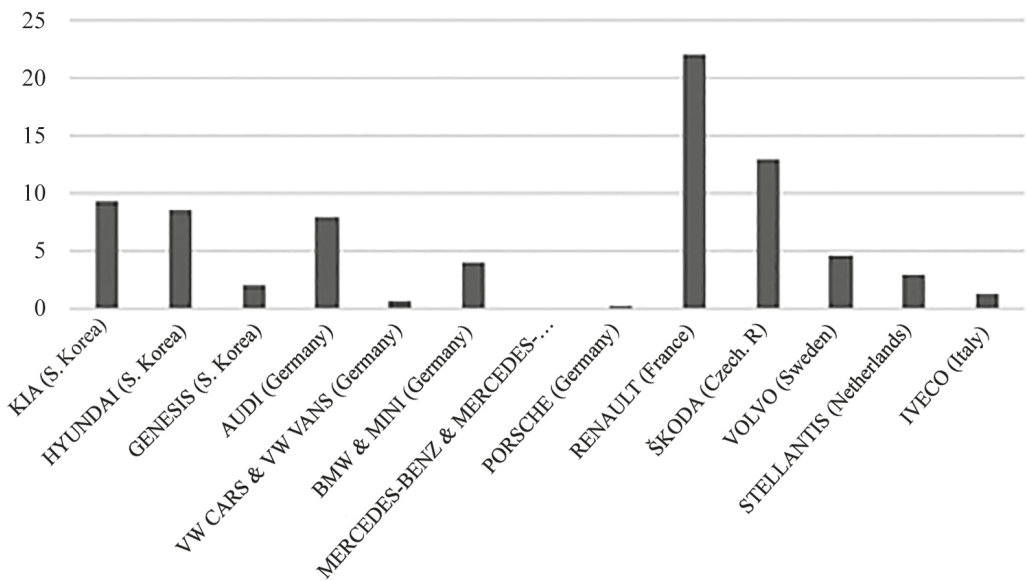


Figure 4. The number of car dealers per model
Source: See Table 2.

Figure 4 presents the number of car dealers after considering the number of car models of brands. Although Renault (France) and Skoda (Czech. R) are highly ahead of other brands, South Korean auto brands Kia and Hyundai still show a good performance. While the accessibility to most of German auto brands excluding Audi is very hard.

While, two German auto brands Audi and BMW & Mini actively participated in a social media marketing (Figure 5). Audi's number of the brands' Russian official Insta-

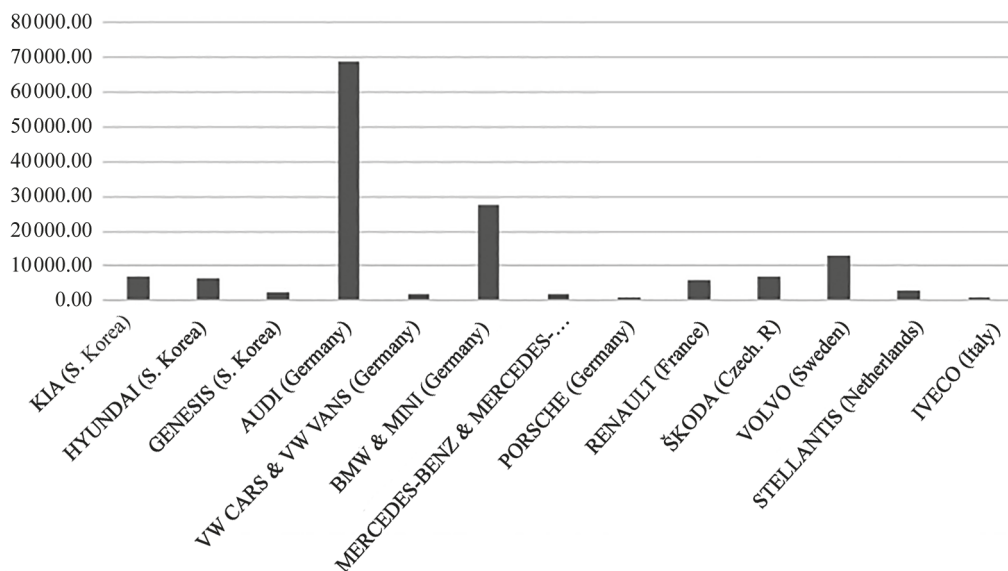


Figure 5. The number of the brands' Russian official Instagram* accounts' followers (divided by the number of models) (as of 19.05.2023)

Source: See Table 2.

gram accounts' followers (divided by the number of models) reached to 68750.00, while that of BMW & Mini amounted to 27315.00. The position of the Korean auto brands in a social marketing is average to high: Kia took the 5th (7000.00), while Hyundai took the 6th (6600.00).

Conclusions

This study compares brand competitiveness of European and Korean auto brands in the Russian market based on the cross-sectional datasets. The econometric models are constructed by employing the theoretical frame of the Porter's diamond model. From the results of the regression analysis, it was revealed that the product diversification, accessibility to dealers (or retail shop), and the active marketing in social media are critical factors in promoting auto sales in the Russian market. The results are consistent with different regression estimators (i. e., OLS, WLS and Robust least squares).

While variables related to prices and levels of competition turned out to be insignificant, it seems that a low price could be one factor to influence consumption, but not be a main factor in leading consumption in the Russian market. Also, the auto industry itself has a high threshold. Thereby, the level of competition is relatively low compared to other industries, and that is why it is difficult for it to become a main factor in sales. While the impact of innovation on the sales of an auto brand is rather ambiguous, its significance appears or disappears depending on the different regression estimator.

* Is recognized in Russian Federation as an extremist organization.

From the comparison, we can induce two important conclusions. First, Korean auto brands are ahead of the European auto brands in terms of supporting and related industries of the Porter's diamond model. It has a huge pool of dealers and maximizes the contacting points with potential Russian customers. Secondly, the German auto brands take the leading position in the product diversification and social media marketing. However, Korean auto brands are not behind on those criteria compared to the average European auto brands, and take a middling-high position. In addition to the outstanding performance of Korean auto brands on the Russian market, it seems that securing varied retail channels is particularly crucial for the sales of an automobile on the Russian market, whose territories are vast and where consumers are sparsely located. In this sense, it is seriously recommended for the European auto brands to expand their sales channels on the Russian market.

Russian automobile market is relatively large and highly competitive, which requires companies to form a comprehensive marketing strategy for success. As can be seen from above, social media is already an integral part of promotion programs for major car market players, allowing them to engage a wider scope of potential and existing customers. At the same time, retail availability remains a crucial importance through letting customers to physically experience the car before purchase. Social media mostly aims at showcasing new models, sharing and shaping customer experiences and providing updates on industry news and events. European and Korean brands have already identified their target audiences and the social media platforms they used. Also, due to long presence at Russian market, both European and Korean companies know the importance of retail availability, due to customers desire to see and experience vehicles before making a purchase. All these brands have retail strategies opening physical showrooms at locations in cities and established partnerships with dealerships.

On the other hand, this study contains shortcomings. Due to the Western sanctions brought on by the Russian-Ukraine crisis, the market share of auto brands has undergone a drastic change: the sales of the domestic and Chinese auto brands surged dramatically during 2023. And, multiple foreign auto brands closed their factories or sold their stakes due to supply chain problems. As was shown above, many brands have left the market and minimized their retail availability and social media presence. However, we saw that these are mere temporary setbacks that will be nullified after global politics stabilize. This is clear when looking at the conditions according to which those stakes were sold: the deals include an option for the foreign companies to regain their stake from a purchasing company within a certain designated period. Therefore, the findings in our study are difficult to implement in the short-term, but are achievable on the mid to long term.

However, in order to have a chance to return in the current situation of drastic macroeconomic and geopolitical changes the companies have to take into account the need to preserve the crucial elements of market success — retail availability and social media. Without investment into such foothold at the market the Korean and European brands may find it difficult to regain their presence in the long term, regardless of the asset buy-back options. In the current sanction situation, the appropriate strategies should focus on increasing the social media presence in the country's most authoritative second-hand platforms, such as Auto.ru, Avito.ru, Drom.ru, as well as Russian VKontakte network. Due to impossibility to keep up a formal retail availability and dealer network like before, the companies should invest into providing the chance for local entrepreneurs to gain access

to appropriate networks in CIS countries. Combined with a strategy of keeping the public awareness in media landscape, this would allow the potential consumers to retain the “brand recall” level. Upon the stabilization of the geopolitical situation this would serve as a basis for further deployment of marketing campaigns of the brands in question at the time of their return to the market. Without such long-term planning in these two crucial elements of brand success, it is highly likely that the observed expansion of Chinese brands would completely eliminate the chance of return.

References

- Ajupov, A. A., Kurilova, A. A., Kurilov, K. Y. and Bogatirev, V. D. (2015) ‘Prospects of Russian automobile industry development’, *Asian Social Science*, 11 (11), 168 p.
- Akulich, O. V. (2011) ‘Methodological argumentation of determining the competitiveness of the industry’, *Proceedings of the Irkutsk State Academy of Economics*, 3 (77), pp. 86–89. (In Russian)
- Alimova, L. (2017) ‘The main trends in demand for Russian automotive market in 2016’, *Vestnik Universiteta*, (2), pp. 5–8. (In Russian)
- Ariffin, A. S. and Sahid, M. L. I. (2017) ‘Competitiveness analysis of ASEAN automotive industry: A comparison between Malaysia and Thailand’, *Journal of Science, Technology and Innovation Policy*, 3 (2), pp. 11–20.
- Batra, A. and Khan, Z. (2005) ‘Revealed comparative advantage: An analysis for India and China’, *Working paper (no. 168)*, Indian Council for Research on International Economic Relations (ICRIER). New Delhi.
- Belkin, V. N., Belkina, N. A. and Vladykina, L. B. (2015) ‘Theoretical basis of the company competitiveness assessment’, *Economy of Region*, 41 (1), pp. 144–155. (In Russian)
- Castro-González, S., Peña-Vinces, J. C. and Guillen, J. (2016) ‘The competitiveness of Latin-American economies: Consolidation of the double diamond theory’, *Economic Systems*, 40 (3), pp. 373–386.
- Chobanyan, A. and Leigh, L. (2006) ‘The competitive advantages of nations: Applying the “Diamond” model to Armenia’, *International Journal of Emerging Markets*, 1 (2), pp. 147–164.
- Choudhury, M., Mishra, B. B. and Mohanty, P. K. (2019) ‘An Empirical Study of Branding Strategy at Dealer point for Selling of Car-a qualitative & systematic Review of Literature’, *International Research Journal of Automotive Technology*, 2 (1), pp. 1–26.
- Chung, T. W. (2016) ‘A study on logistics cluster competitiveness among Asia main countries using the Porter’s diamond model’, *The Asian Journal of Shipping and Logistics*, 32 (4), pp. 257–264.
- Dixit, S. and Joshi, M. (2011) ‘Enhancing Competitiveness of Indian Automobile Industry: A Study Using Porters Diamond Model’, *Management & Change*, 15 (1 & 2).
- Fang, K., Zhou, Y., Wang, S., Ye, R. and Guo, S. (2018) ‘Assessing national renewable energy competitiveness of the G20: A revised Porter’s Diamond Model’, *Renewable and Sustainable Energy Reviews*, 93, pp. 719–731.
- Fertő, I. and Hubbard, L. J. (2003) ‘Revealed comparative advantage and competitiveness in Hungarian agri-food sectors’, *World Economy*, 26 (2), pp. 247–259.
- Freund, C. and Pierola, M. D. (2020) ‘The origins and dynamics of export superstars’, *The World Bank Economic Review*, 34 (1), pp. 28–47.
- Gal’perin, I. Y. (2014) ‘The Russian passenger car market, as part of the global market. The state and prospects of development’, *Russian Journal of Industrial Economics*, 4, pp. 124–131. (In Russian)
- Guan, W. (2023) ‘Analysis of the Main Influencing Factors of Automobile Sales Based on Empirical Analysis’, *Advances in Economics, Management and Political Sciences*, 6, pp. 515–525. <https://doi.org/10.54254/2754-1169/6/20220197>
- Gupta, H. and Nanda, T. (2015) ‘A quantitative analysis of the relationship between drivers of innovativeness and performance of MSMEs’, *International Journal of Technology, Policy and Management*, 15 (2), pp. 128–157.
- Harzing, A. W. and Giroud, A. (2014) ‘The competitive advantage of nations: An application to academia’, *Journal of Informetrics*, 8 (1), pp. 29–42.
- Kalmykov, Y. P. (2019) ‘Problems and prospects of development of the automotive industry in Russia’, *Bulletin of Mechanical Engineering*, 12, pp. 75–78. (In Russian)
- Kharub, M. and Sharma, R. K. (2016) ‘Investigating the role of porter diamond determinants for competitiveness in MSMEs’, *International Journal for Quality Research*, 10 (3), pp. 471–486.

- Kovalenko, A. I. (2013) 'Theoretical and methodological aspects of using the concept of "competitiveness" in scientific research', *Modern competition*, 6 (42), pp. 65–79. (In Russian)
- Kukar-Kinney, M., Ridgway, N. M. and Monroe, K. B. (2012) 'The Role of Price in the Behavior and Purchase Decisions of Compulsive Buyers', *Journal of Retailing*, 88 (1), pp. 63–71.
- Kurilov, K. Y. (2012) 'World and Russian automotive industry development perspectives', *Studies on Russian Economic Development*, 23, pp. 478–487.
- Kurilova, A. A. and Kurilov, K. Y. (2016) 'Main Factors Influencing the Fall of Sales in the Russian Automobile Market', *Actual Problems of Economics and Law*, 10 (2), pp. 102–112. (In Russian)
- Lakner, Z., Kiss, A., Popp, J., Zéman, Z., Máté, D. and Oláh, J. (2019) 'From basic research to competitiveness: An econometric analysis of the global pharmaceutical sector', *Sustainability*, 11 (11), 3125.
- Lee, J. S. (2017) 'Competition analysis of automobile industry between Korea and France', *International Journal of Economics, Commerce and Management*, 5 (8), pp. 124–140.
- Makoni, T. and Chikobvu, D. (2023). 'Assessing and Forecasting the Long-Term Impact of the Global Financial Crisis on New Car Sales in South Africa', *Data*, 8 (5), pp. 2–16.
- Morano, R. S., Jacomossi, R. R., Barrichello, A. and Feldmann, P. R. (2023) 'The Interdependence Between Ease of Doing Business, Innovation, and Competitiveness of Nations', *Brazilian Administration Review*, 20 (2), pp. 1–14.
- Oral, M. and Özkan, A. O. (1986) 'An empirical study on measuring industrial competitiveness', *Journal of the Operational Research Society*, 37, pp. 345–356.
- Öz, Ö. (2002) 'Assessing Porter's framework for national advantage: The case of Turkey', *Journal of Business Research*, 55 (6), pp. 509–515.
- Pascoal, E. T., Delamaro, M. C., Ibusuki, U., Tsukada, O. and Rocha, H. M. (2017) 'The new Brazilian automotive policy and its impact on the competitiveness of multinational automobile and auto parts manufacturers', *International Journal of Automotive Technology and Management*, 17 (3), pp. 225–247.
- Petrakis, P. E., Kostis, P. C. and Valsamis, D. G. (2015) 'Innovation and competitiveness: Culture as a long-term strategic instrument during the European Great Recession', *Journal of Business Research*, 68 (7), pp. 1436–1438.
- Porter, M. E. (1990) *The Competitive Advantage of Nations*. London: Macmillan.
- Safiullin, N. Z. and Safiullin, L. N. (2002) *Competitive advantages and competitiveness*. Kazan: Publishing House of Kazan University. (In Russian)
- Sandu, M. C. (2015) 'Reputation — An Important Element for Automotive Industry Profit?', *Procedia Economics and Finance*, 32, pp. 1035–1041.
- Santos-Vijande, M. L., del Río-Lanza, A. B., Suárez-Álvarez, L. and Díaz-Martín, A. M. (2013) 'The brand management system and service firm competitiveness', *Journal of Business Research*, 66 (2), pp. 148–157.
- Shvandar, K. (2008) 'International Competitiveness: Transformation of Notion, Assessment Criterion, Practical Results', *Bulletin of the Moscow University. Issue 6: Economics*, 2, pp. 58–72.
- Singh, R. K., Garg, S. K. and Deshmukh, S. G. (2008) 'Competency and performance analysis of Indian SMEs and large organizations: An exploratory study', *Competitiveness Review: An International Business Journal*, 18 (4), pp. 308–321.
- Suardika, I. K. and Dewi, M. S. (2021) 'The Impact of Brand, Product Quality and Price on Sales Volume of Samana Mart Stores', *International Journal of Social Science and Business*, 5 (2), pp. 256–261.
- Szabó, E., Bajkai-Tóth, K., Rudnák, I. and Magda, R. (2021) 'The role of human resource in organizational performance in the automotive industry', *Journal of Management*, 37 (1), pp. 19–28.
- Taranukha, Y. V. (2017) *Competition and competitiveness*. Moscow: Rusains Publ. (In Russian)
- Tsai, P. H., Chen, C. J. and Yang, H. C. (2021) 'Using porter's diamond model to assess the competitiveness of Taiwan's solar photovoltaic industry', *Sage Open*, 11 (1).
- Tsiligiris, V. (2018) 'An adapted Porter Diamond Model for the evaluation of transnational education host countries', *International Journal of Educational Management*, 32 (2), pp. 210–226.
- Ülengin, F., Önsel, S., Aktas, E., Kabak, Ö. and Özyayın, Ö. (2014) 'A decision support methodology to enhance the competitiveness of the Turkish automotive industry', *European Journal of Operational Research*, 234 (3), pp. 789–801.
- Vlados, C. (2019) 'Porter's diamond approaches and the competitiveness web', *International Journal of Business Administration*, 10 (5), pp. 33–52.
- Vošta, M. and Kocourek, A. (2017) 'Competitiveness of the European automobile industry in the global context', *Politics in Central Europe*, 13 (1), pp. 69–86.

- Waiganjo, M. (2022) 'Impact of Price Wars on Sales Performance of Carbonated Drinks Companies in Kenya: A Case of Highlands Drinks Limited', *American Journal of Business and Strategic Management*, 1, pp. 15–25.
- Wang, S., Lin, Y., Yan, Y. and Zhu, G. (2022) *Social media user-generated content, online search traffic and offline car sales*. <https://doi.org/10.1108/K-03-2022-0358>
- Wang, Y. Y., Wang, T. and Calantone, R. (2021) 'The effect of competitive actions and social media perceptions on offline car sales after automobile recalls', *International Journal of Information Management*, 56, <https://doi.org/10.1016/j.ijinfomgt.2020.102257>
- Zhang, K. H. (2014) 'How does foreign direct investment affect industrial competitiveness? Evidence from China', *China Economic Review*, 30, pp. 530–539.
- Zhurova, L. I. and Moshkova, T. A. (2022) 'The Economic Impact of the COVID-19 Pandemic on the Russian Automotive Industry', in Osipov, V. S. (ed.) *Post-COVID Economic Revival*, Vol. II. Cham: Palgrave Macmillan.
- Ziling, Z. and Yan, L. (2018) 'A Comparative Study on the Competitiveness among Japanese, American, German and Chinese Automobile Brands in Chinese Market', *Innovation and Management*, pp. 16–30.
- Zolkifly, N. H., Haron, H. and Hussin, M. N. (2018) 'Car Dealers' Perception towards Digital Signage and Its Descriptors: An Evidence from National Car Showroom', *Journal of Supply Chain Management*, 7 (4), p. 132.

Received: 17.08.2023

Accepted: 23.11.2023

Authors' information:

Han-Sol Lee — PhD in Economics; li-kh@rudn.ru

Sergey U. Chernikov — PhD in Economics, Associate Professor; chernikov-syu@rudn.ru

Ekaterina A. Degtereva — Dr. Sci. in Economics, Associate Professor; degtereva-ea@rudn.ru

Alexander M. Zobov — PhD in Economics, Associate Professor; zobov-am@rudn.ru

Исследование конкурентоспособности брендов: сравнительный анализ европейских и корейских автомобильных брендов в российской автомобильной промышленности

Хансол Ли, С. Ю. Черников, Е. А. Дегтерева, А. М. Зобов

Российский университет дружбы народов имени Патриса Лумумбы,
Российская Федерация, 117198, Москва, ул. Миклухо-Маклая, 6

Для цитирования: Lee, Han-Sol, Chernikov, S. U., Degtereva, E. A. and Zobov, A. M. (2024) 'A study on brand competitiveness: A comparative analysis of European and Korean auto brands in the Russian automotive industry', *Вестник Санкт-Петербургского университета. Экономика*, 40 (1), с. 58–79. <https://doi.org/10.21638/spbu05.2024.103>

В этом исследовании сравнивается конкурентоспособность европейских и корейских автомобильных брендов на российском автомобильном рынке на основе наборов данных по 42 автомобильным брендам в России на 2022 г. Эконометрические модели (OLS, WLS и надежные методы наименьших квадратов) построены с использованием теоретической основы модели Даймонда Портера. Результаты регрессионного анализа позволили прийти к выводу, что диверсификация ассортимента, доступность для дилеров (или розничных магазинов) и активный маркетинг в социальных сетях являются решающими факторами для продвижения продаж автомобилей на российском рынке. Основываясь на этом сравнении, можно сделать два важных вывода. Во-первых, корейские автомобильные бренды опережают европейские в управлении цепочкой создания стоимости, поскольку у них огромный пул дилеров и максимальный контакт

с потенциальными российскими клиентами. Во-вторых, немецкие автомобильные бренды лидируют, когда дело доходит до диверсификации продукции и маркетинга в социальных сетях. Однако корейские автомобильные бренды по этим критериям не отстают от среднестатистических европейских автомобильных брендов и занимают позицию выше среднего. Учитывая выдающиеся показатели корейских автомобильных брендов, особенно на российском рынке, кажется, что обеспечение безопасности многочисленных каналов розничной торговли имеет особенно важное значение. Результаты этого исследования полезны национальным и международным автомобильным компаниям для разработки бизнес-стратегий в российской автомобильной промышленности.

Ключевые слова: российская автомобильная промышленность, развивающийся рынок, конкурентные преимущества, международный бизнес, факторы конкуренции, алмазная модель Портера, анализ бренда, перекрестный анализ.

Статья поступила в редакцию: 17.08.2023

Статья рекомендована в печать: 23.11.2023

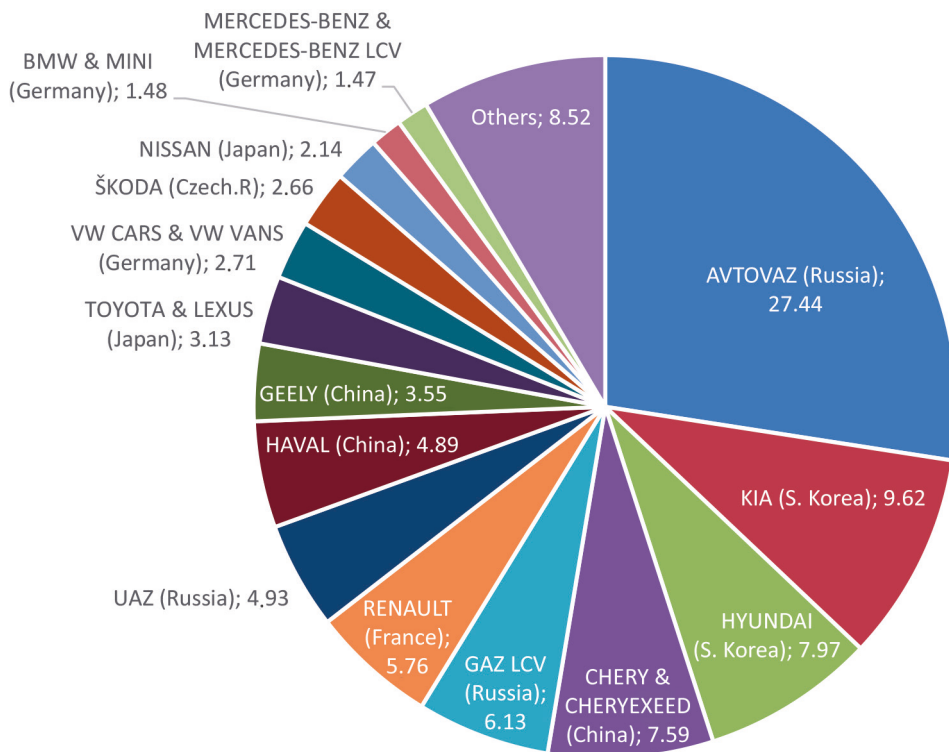
Контактная информация:

Ли Хансол — канд. экон. наук; li-kh@rudn.ru

Черников Сергей Юрьевич — канд. экон. наук, доц.; chernikov-syu@rudn.ru

Дегтерева Екатерина Андреевна — д-р экон. наук., доц.; degtereva-ea@rudn.ru

Зобов Александр Михайлович — канд. экон. наук., доц.; zobov-am@rudn.ru



The market share of enterprises in the automotive industry in Russia in terms of units sold in 2022
 Source: Association of European Business. (2023) *AEB: website*. URL: <https://aebrus.ru/> (accessed: 15.05.2023).