

Domestic Automotive Industry: Consumer Requirements

Egorov E.E.

Kozma Minin Nizhny Novgorod State Pedagogical University,
Ul'janov street, 1, N. Novgorod, 603950, Russia
e-mail: eegorov@mail.ru

Lebedeva T.E.

Kozma Minin Nizhny Novgorod State Pedagogical University,
Ul'janov street, 1, N. Novgorod, 603950, Russia
e-mail: tatyana.lebedeva@bk.ru

Prokhorova M.P.

Kozma Minin Nizhny Novgorod State Pedagogical University,
Ul'janov street, 1, N. Novgorod, 603950, Russia

Bulganina S.V.

Kozma Minin Nizhny Novgorod State Pedagogical University,
Ul'janov street, 1, N. Novgorod, 603950, Russia

Abstract—The article describes a marketing study of commercial vehicle consumers' preferences, performed with a view to improve the products of the GAZ Group. In the beginning of the article there's a description of the Russian automobile market status as of the end of 2017, stating the basic development trends. The study reviewed in the article has been performed by the questionnaire survey method and the survey participants were the GAZ automobile brand owners. The study outcome revealed the most popular GAZ brand vehicles, the average service life of this brand's autos, the frequency of these vehicles' owners resorting to the car service and the level of satisfaction with the GAZ Group product quality has been assessed, as well as the quality of the feedback between the manufacturer and the consumers. Assessed was also the consumers' willingness to purchase vehicles of this manufacturer, the sales promotion measures, exercising the major effect on potential consumers. Among the recognized characteristics which serve as a basis for consumer orientation while purchasing commercial vehicles were the technical characteristics, the price, the operating conditions and the operating economy. Among the basic "problem components" of the GAZ brand commercial vehicles, the respondents identified the internal-combustion engine, the car body (paint and lacquer coating), the material quality, etc. The study results, presented in the article, have a practical value and could be used for the GAZ brand commercial vehicle promotion and improvement program development.

Keywords—Automotive, Russian car market, Study of the opinion of owners of cars GAZ.

I. INTRODUCTION

The Russian Federation automotive products market analyses suggests that the stock reserve will not last long, and new vehicle batches may be coming to dealerships at new prices [7]. The automakers are not in a hurry to raise their rates; however, the factors affecting the market are unpredictable for players [20]. The automotive market has stopped at the threshold of big changes: a new round of economic sanctions have put into question the car sales in the long term [5,10,18]. Based on opinion of 'AUTOSTAT' analytical center expert, Mr. Azat Timerkhanov: 'Even a simple escalation of tension may result in a

consumer activity drop. Presently, our forecast remains the same: new car sales in 2018 will grow by 10% [1]' Dealers have confirmed that people are developing interest towards cars and the demand has been warmed up. In case of an unfavorable economic scenario development the price increase will happen in May-June, as within two months most of the dealers will exhaust their warehouse stocks, and the cars will be sold out based on the old price lists [1,2]. 'It is possible that the vehicle cost would change as these are in the supply process but not yet delivered to the dealer,' noted Ms. Sidorina. However, right now the dealers do not see the prerequisites for the price to boost [1].

Separately, it is worth mentioning the dynamically developing automotive industry of the countries of Central and Eastern Europe, actively supported by foreign capital and industrial policies of these countries, whose share in European car production grew from 5 to 20% and acquired an export-oriented nature [3,15,16,17,19,21].

In order to raise 'OIC' LLC product's competitiveness both at domestic and export market, there's a need first and foremost in determining the consumer requirements to this type of product, continuously exercising efforts to improve the product and the service quality in parallel [6,9,14] A questionnaire, based on Google Application Form, consisting of 20 questions has been drawn up in order to determine the requirements to commercial vehicles. This questionnaire could be provisionally divided into 3 parts: details of respondents, degree of satisfaction with GAZ brand vehicle (GAZelle Next, GAZelle Business, Sobol, Valdai, Sadko, GAZon Next) quality and consumer requirements to a commercial vehicle.

The objectives of the marketing study performed are as follows: consumer market segmentation, study of the main shortcomings of the existing range of products, determining customer degree of satisfaction with the quality of GAZ brand cars, determining the attitude of consumers towards the products of the GAZ brand (positive, negative), as well as identifying consumer preferences.

The study provides the most complete and valuable, from consumer's point of view, information about the consumer properties of commercial vehicles, as well as the data for the formation of the most successful advertising campaign arguments, selection of the most suitable middlemen.

The main task of the study performed is to take into account the consumer requirements when developing or upgrading a commercial vehicle, to analyze the shortcomings identified during operation and the underlying causes, thus making it possible for the GAZ Group to bring its products to a new level of quality and to improve the competitiveness of the enterprise. 100 persons took part in the marketing study performed. All of them were GAZ brand car owners. 73% of these are in the cargo transportation business, 7% of these deal with passenger transportation, 20% - are engineers, in the construction and electrical business, using their vehicles for professional equipment and materials transporting. 80% of the respondents use GAZ brand vehicles to gain a commercial profit and 20% of these use the vehicles for personal needs (hunting, fishing, transporting of personal items.) The age of 72% of the respondents is within the range of 26-45, of 18% - in the range of 18-25 and only 10% of the respondents are older than 46.

The questionnaire survey results have demonstrated that the most popular among GAZ brand vehicles are GAZelle Business, Sobol, and GAZelle Next. This outcome is supported by the automotive industry statistical data: based on the results of 2011, 'Gazelle Business' vehicle was declared a Russian market sales leader, GAZelle Next in the corresponding segment, and Sobol vehicle boasts a special popularity among the entrepreneurs and the alfresco active rest adherents and has got a great amount of positive feedback [1,8]. The less popular vehicles are: GAZon Next (10%), Valdai (7%), and Sadko (2%).

The cars of 41% of the respondents have been in operation for over 3 years, 35% - less than 3 years and 24%— less than a year. As we can see, the difference in values does not exceed 15%, therefore it can be concluded that currently the sales volumes are lower than in the previous years. The reason for this could be both the country's economic and political climate, consumers' dissatisfaction with the car quality, and a negative attitude towards GAZ brand. Attention should be paid to this issue while developing a new product in order to determine the required set of work, namely, whether it suffices to improve the incentive measures or it is necessary to change or improve the technical and operational performance.

The important estimate of the product competitiveness is the consumer degree of satisfaction with this product. The study showed that only 12% of the respondents are completely satisfied with their car quality, 16%— are not totally satisfied and 72% of the respondents are not satisfied with their car quality at all. When asked about the drawbacks of their cars, 52% of the respondents replied that there were some drawbacks and only 5% of them said that there were none. The study results have demonstrated a low level of GAZ brand vehicle quality. The basic reason behind the low quality level according to the respondents' opinion is the low technical performance (61%) and factory flaws (25%), also there is a factor of bad maintenance (4%).

The study has brought to light that the number of consumers who applied to the car service or repair less than in 6 months is greater than the number of ones who apply to the service station on a regular basis. However, the gap between them is 11% and the number of consumers who applied to the service station more than a year ago is only 17%. Based on the data stated, one can put a satisfactory mark for GAZ brand vehicles quality, thus discrediting the competitiveness of GAZ Group of companies. Based on the 5-point scale, the respondents evaluated GAZ brand vehicle quality in the manner as follows: 4 points - 44%, 3 points - 36%, 5 points - 9%, 2 points - 6%, 1 point - 5%. The estimates of the major and successful automobile manufacturers' cars shall be ranked in the manner, as follows: 5-80%, 4-20%. The estimates with 1,2,3 points are undesirable. The GAZ Group products have insufficient quality for a successful company. When studying consumer satisfaction with the manufacturer feedback, namely, the GAZ Group, 'OIC' LLC, the number of dissatisfied (26.8%) and not totally satisfied (32%) respondents cumulatively exceeds the number of respondents (41.2%) satisfied with the feedback.

The results of the study show that the majority of respondents (56%) repair their commercial vehicles on their own, 36% of respondents apply to dealer's car service, and the remaining 8% prefer to service their cars at the automotive service centers of the city. Therefore, it can be concluded that cars should be serviceable, car components and mechanisms should have easy access for repair.

Only 14 persons out of 100 are ready to buy a commercial vehicle, 63 are not ready, and 23 are not sure enough. Consequently, 37 persons out of 100 are potential buyers of a commercial vehicle. In order to attract customers and increase sales volumes it is required to identify measures to stimulate sales, which are better able to influence the potential customers: the potential clients are mostly influenced by the following incentive measures: the warranty period increase (76%), additional free services (71%), discounts (55%), recycling program (29%), to a lesser degree: bonus programs (11%), gifts (9%), discount programs (6%).

The basic part of the study was aimed at studying the consumer current requirements to a commercial vehicle. The data obtained should be synthesized, and an analysis of the possibility of consumer requirements manifestation in the new product should be made [4,13]. First of all, it is necessary to determine what the potential customer is guided by when choosing a commercial vehicle, in order to direct efforts on improving or radically changing the product consumer properties. The results of the study show that when buying a commercial vehicle, a potential customer focuses on technical characteristics and quality, price, operating conditions, and to a lesser extent on aesthetic and psychological characteristics (prestige, appearance, compartment interior decoration), according to figure 1. When developing a new product, one shall take into account the data obtained, take measures to improve the vehicle technical characteristics, performance, as well as the measures to reduce the cost of the car by optimizing production [11,12].

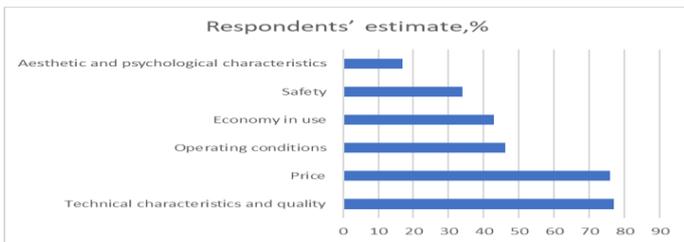


Fig. 1. Commercial vehicle consumer properties.

Let's see in detail the vehicle characteristics that are of interest to consumers, as well as the price range within which consumers are ready to purchase a commercial vehicle (figure 2). As we can see, "air conditioning" and "heated seats" options have the least number of votes, so they will not be included in the concept of a new product (commercial vehicle). The "immobilizer" option does not interest consumers, but the presence of this option is prescribed by the requirements of UNECE regulation No. 97, so these can't be ignored. The results of the study showed that the majority of consumers (61%) are ready to buy a commercial vehicle within one million rubles limits, 38% of consumers - within 1.5 million rubles limits. Only 1% of respondents said that they are ready to buy a commercial vehicle for more than 1.5 million rubles - the complete package medium-duty vehicles and trucks are this price range. Let's get to the main and important part of the study, the purpose of which is to determine and identify consumer claims to existing products, namely, to commercial vehicles, as well as to take into account their requirements and proposals when developing a new or upgrading an existing product. Based on the respondents' opinion, the internal combustion engines installed in GAZ brand commercial vehicles are the principal problem elements (68% of respondents). The least complaints were about the "brake control" element (2%) and the design of cars (3%). The "transmission" (8%), "suspension" (7%), "steering" (5%), "electrical equipment" (7%) elements have gained about the same level of the respondents' assessments.

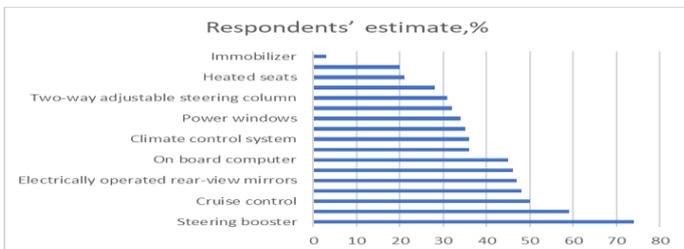


Fig. 2. Commercial vehicle characteristics.

According to the respondents' opinion, the engines installed on commercial vehicles of the GAZ brand, require further upgrading.

II. CONCLUSION

After we have completed the market study, we can now picture the concept of the new commercial vehicle – the product of 'OIC' LLC. The developers are faced with the following tasks: improve the technical characteristics of the car (fuel consumption, dynamics and power, weight), ground clearance (clearance), turning radius and other parameters), a possibility of installing the options listed in the table as well as the use of

quality materials. Currently, the main problem when developing a new commercial vehicle is the internal combustion engine installation issue, as for the new internal combustion engine upgrading or development, there is not enough both financial and labor resources. Whereas, the imported engine installation would result in the product cost increase, which is undesirable. However, if such an engine installation helps to meet the customers' requirements, thus increasing the company competitiveness, then this solution will be optimal in this situation.

REFERENCES

- [1] Autostat Official site <https://www.autostat.ru/articles/33950>
- [2] Baronina Yu.A. Foreign investment in the Russian automobile industry (2016) ME & MO. V. 60. N. 6. pp. 61-69 DOI: 10.20542 / 0131-2227-2016-60-6-61-69
- [3] Beblavy M., Kurekova L., Drahokoupil J., Myant M., Domonkos S. Linking labour regimes and technological innovation in Central and Eastern Europe: the case of automotive and software industries (2012) NEUJOBS Working.. N. 6.2. p.69
- [4] Brady M., Saren M., Tzokas N. Integrating Information Technology into Marketing Practice — the IT Reality of Contemporary Marketing Practice (2002) J. of Marketing Management. Vol. 18. N 5–6. pp.45-51
- [5] Data of the international organization of car manufacturers. URL: <http://www.oica.net/category/production-statistics/> (date of application: 15.04.2018).
- [6] Dibb S., Simoes C., Wensley R. Establishing the Scope of Marketing Practice: Insights from Practitioners (2014) European J. of Marketing. 2014. Vol. 48. N 1–2. pp.-17
- [7] Egorova A.O. Mechanical engineering enterprises' competitive strategies: present-day Russian practice (2013) Modern High Technologies. Regional Application. N 2(34). pp. 45-51.
- [8] Egorova A.O., Semahin E.A., Aiplatova I.I. Risk management as a priority of corporate management of the group of companies "GAS"(2017) Journal of Economy and entrepreneurship. N 8-3 (85-3). pp. 713-716.
- [9] Garina, E.; Kuznetsov, V.; Yashin, S.; et al. Management of Industrial Enterprise in Crisis with the Use of Incompany Reserves (2017) Overcoming uncertainty of institutional environment as a tool of global crisis management: Conference on Overcoming Uncertainty of Institutional Environment as a Tool of Global Crisis Management Location: Athens, Greece Date: APR. Book Series: Contributions to Economics. 2017. pp: 549-555.
- [10] Haiss P., Mahlberg B., Molling M. The Automotive Industry in Central and Eastern Europe -Engine of Grow or Free Rider? (2009) Oxford Business&Economics Conference Program. 2009. p.27
- [11] Kuznetsov, V.P., Garina, E.P., Romanovskaya, E.V., Kuznetsova, S.N., Andryashina, N.S. Organizational design and rationalization of production systems of a machine-building enterprise (by the example of the contract assembly workshop) (2018) Espacios, 39 (1), статья № 25
- [12] Kuznetsov, V.P., Romanovskaya, E.V., Egorova, A.O., Andryashina, N.S., Kozlova, E.P. Approaches to developing a new product in the car building industry (2018) Advances in Intelligent Systems and Computing, 622, pp. 494-501. DOI: 10.1007/978-3-319-75383-6_63
- [13] Lebedeva T.E., Akhmetshin E.M., Dzagoyeva M.R., Kobersy I.S., Ikoev S.K. Corporate governance issues and control in conditions of unstable capital risk (2016) International Journal of Economics and Financial Issues. V. 6. N S1. pp. 25-32.
- [14] Maletsky J. Describing Marketing Practices Using the Social Theory of Practice // University of Pretoria Website. 2010. URL: <http://upetd.up.ac.za/> (last accessed data: 18.04.2014).
- [15] Open educational resource for the global economy TheGlobalEconomy.com. Official site. URL: http://www.theglobaleconomy.com/indicators_data_export.php (date of circulation: 07/05/2018).
- [16] Radosevic S., Rozeik A. Foreign Direct Investment and Restructuring in the Automotive Industry in Central and Eastern Europe (2005) SSEES, University College London. p.41

- [17] Rechnitzer J., Smaho M. Vehicle Industry and Competitiveness of Regions in Central and Eastern Europe (2012)/Szchenyi Istvin University, Universitas-Gyo'r Nonprofit Ltd, Gyo'r. p.301
- [18] Statistical data of Eurostat. The official 17. site. URL: http://ec.europa.eu/eurostat/statistics-explained/index.php/Main_Page (date of circulation: 05/19/2018) 18.The automotive sector in CEE: What's next? (2007) Analysis by the Unicredit Group new Europe Research network. N51 p.19.
- [19] UNCTAD statistics. Official site. URL: <http://unctad.org/en/Pages/Statistics.aspx> (date of the appeal: 15/04/2018).
- [20] Vakulenko R.Ya., Egorov E.E., Proskulikova L.N. Investigation of the effectiveness of the enterprise's activities (2015) Vestnik of Minin University. N 4 (12). p. 3.
- [21] Worrall D., Donnelly T., Morris D. Industrial Restructuring: The role of FDI, Joint Ventures, Acquisitions and Technology Transfer in Central 20. Europe's Automotive Industry (2007) Coventry University. p.27