Formation of the Economic Potential of the Enterprise (Service Enterprises – Repair and Maintenance of Vehicles) Evidence from Bosch Company

Iryna A. Azhaman[1,*], Oleksiy I. Zhydkov[1], Maryna V. Hronska[1], Nataliia A. Petryshchenko[2] and Nataliia V. Serohina[2]

[1]*Department of Management and Marketing, Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine*

[2]*Department of Economics and Entrepreneurship, Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine*

Abstract: The study discusses the formation of the economic potential of an enterprise (Bosch company), as exemplified by service enterprises involved in the repair and maintenance of vehicles. The relevance of research in this area is determined by the large number of operating Bosch service companies engaged in servicing vehicles and the breadth of their services, which largely determines the firm's policy and forms its economic potential. The identification of criteria for assessing the formation of the economic potential of the enterprise, it is important to determine the economic patterns of development of enterprises operating in automobile service, contributes to a better understanding of the patterns that affect the development of enterprises in the automotive sector at large. Furthermore, the economic potential of the enterprise is formed as a joint result of its economic and business activities, and the presence of an extensive network of Bosch service enterprises significantly expands the possibilities for conducting such activities. Thus, there is a direct correlation between the number of Bosch automobile service enterprises, the services rendered by them in repair and maintenance of motor vehicles, the quality of work of such service enterprises and the formation of the economic potential of Bosch at large. The results of this study can be of significant practical importance for functioning and newly created enterprises in automobile transport service maintenance, in the aspect of identifying and stating fundamental principles that influence the formation of their economic potential and improve the quality of their work in general.

Keywords: Road transport, service, business economics, economic potential, vehicle repair, Bosch car service.

INTRODUCTION

The formation of the economic potential of the enterprise is of great importance for its successful functioning, regardless of the direction in which the company operates. In relation to the Bosch company, it should be noted that the auto repair enterprises of this concern have long and successfully been working in different countries of the world, having won the company fame as an international supplier of components for automobiles. The economic potential of the company, its formation, becoming, and development played a significant role in this. Studies of the economic potential of enterprises clearly demonstrate that the structure of economic potential should include only those elements that clearly describe its investment and financial capabilities, and these elements should have a direct impact on the successful implementation of management decisions and investment projects, among which special attention should be given to investment potential of the enterprise, property potential of the enterprise, financial potential of the enterprise. By themselves, these elements, their functions and tasks contribute to increase in the efficiency of the enterprise's production activities, the implementation of core and other types of products, the provision of a full range of enterprise services with the full use of its economic potential (Razinkov and Razinkova 2016, Razinkov and Razinkova 2017).

Bosch's automotive operations are extensive and rich in tradition. Back in the 1880s, the company developed the world's first ignition system with the use of magneto, an order for the development of which was received from one engineering company. The first plant for the production of components for ignition systems was built and put into operation in 1909 (Robert Bosch GmbH… 2020). Nowadays, there is the world's largest, independent network of service stations for automobiles service stations called Bosch Service, the activity of which dates back to 1921. The network has over 16,000 service companies engaged in the repair and maintenance of cars in more than 160 countries (Bosch Avtoservis Brovakar 2020).

In recent years, modern automotive industry has taken the path of introducing a considerable number of devices and systems that consume electricity. Bosch has developed several battery series: S3, S4, S5 for

*Address correspondence to this author at the Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine; Tel: +3 8(048) 729-85-48; E-mail: ir.azhaman@tanu.pro

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cars and trucks, as well as the S6 series of batteries for premium cars. Bosch service companies replace and install all types of batteries. Furthermore, Bosch service companies have long and successfully carried out operations to replace fuel injection systems, which significantly minimises fuel consumption, reduces exhaust toxicity and allows for the engine to reach its optimum operating mode. Bosch is the world's leading manufacturer of gasoline and diesel fuel injection systems, supplying such systems to the assembly line of automotive equipment manufacturers as well as spare parts to the market. Bosch offers service stations and organisations selling auto parts such production as plunger couples, sprayers, nozzles, glow plugs in case of diesel fuel injection systems, as well as gasoline pumps, lambda sensors, mechanical and electromagnetic nozzles for gasoline fuel injection systems (Bastion Autogroup 2019). Bosch plays a prominent role in car service, thanks to a huge, extensive network of car service stations around the world. An incomplete list of technological operations performed by specialists of the Bosch Service vehicle service station network includes: maintenance of car engines; technical diagnostics and checking the condition of vehicle systems; brake system maintenance; replacement and repair of car windows; checking and adjusting the operation of lighting systems; tire maintenance (mounting and dismounting); maintenance of automobile electronic systems; maintenance of climate control systems (Bosch Service 2020). A similar situation also occurs in other countries where the Bosch Service vehicle service network operates. In this regard, it should be noted that it is the presence of an extensive network of Bosch service enterprises that determines its development and the formation of the economic potential at large.

In general, the economic potential of any enterprise, regardless of the scope of its activity, does not constitute a constant value. Furthermore, the literature does not contain any clear definition of this concept from the standpoint of its defining components. Upon defining the concept of economic potential, various authors focus either on the resource component, or on opportunities and hidden reserves. These accents determine the approach to the definition of the concept of economic potential of an enterprise (Sheshukova and Kolesen 2011). In turn P.V. Ignatovsky (1980) interprets the very concept of economic potential as "the available machines and tools, an arsenal, scientific and industrial, labour resources, extracted energy reserves and accumulated production experience". Some researchers are of the opinion that economic potential constitutes the ability of an enterprise to invent something new, function, create. The definition of a modern economic dictionary indicates that economic potential is "the combined ability of the economy of a single object to carry out activities, produce new and traditional types of products, and develop production and consumption (Raizberg, Lozovsky and Starodubtseva 2006). In this regard, it becomes obvious that the economic potential of Bosch, which has an extensive network of service stations around the world, is very high and its formation took and takes a considerable period of time. Thus, the issues of forming the economic potential of an enterprise, as exemplified by a network of service centres for maintenance of automobile transport facilities of Bosch, require a detailed study, with the use of a large amount of statistical information. Upon forming the assessment, it is necessary to take into consideration many factors that influence the development of a single car service enterprise and the entire system at large, to analyse various aspects of the activity of car service enterprises in the context of the policy of the entire Bosch company at large. The economic potential of Bosch is not a constant, due to the tendencies in the life of the company and its development, therefore the issues of its formation require careful study and accurate assessment.

MATERIALS AND METHODS

The study sets the task of studying the formation of economic potential, based on the consideration of the activities of Bosch service enterprises engaged in the repair and maintenance of motor vehicles. The main criteria that affect the formation of the economic potential of the enterprise are identified within the framework of the considered example. The research methodology is based on a quantitative method for analysing information about the activities of a network of Bosch service centres around the world. The available statistical information on the activities of the enterprise's divisions engaged in the repair and maintenance of vehicles is analysed, a research assessment of the production capacities of these enterprises, the quality of their services, the number and qualifications of employees of the enterprises of the company under study is provided. The theoretical developments on this subject, contained in the scientific articles of the authors involved in research into the formation of the economic potential of the enterprise in the countries of the former USSR and abroad, are also carefully investigated. Theoretical studies of this issue contribute to a better understanding of the subject of research and contribute

to the identification and statement of the basic laws that have a significant impact on the formation of the economic potential of the enterprise at large. In this context, the research methodology involves the inclusion of a logical analysis of general theoretical information and its binding to a specific situation related to the study of the activities of Bosch service enterprises. A significant amount of data was taken from foreign sources, the works of foreign authors who studied the activities of Bosch enterprises and its impact on the formation of the economic potential of the company at large.

To facilitate the perception of information and create the most complete picture of the study, information from foreign sources: online publications, book and journal publications was translated into Russian. In general, the study reveals a significant impact exerted by Bosch enterprises on the development of the car service industry at large, and in particular, these enterprises largely form indicators of business activity of Bosch and its economic potential. The research methodology of this issue involves the identification of certain statistical patterns in the formation of the economic potential of the enterprise at large, based on the available theoretical information and in relation to Bosch in particular. The paper provides a research assessment of the main factors determining the formation of the economic potential of the enterprise, and the influence of these factors is monitored specifically within the framework of the subject matter. In general, the results of this study can have significant theoretical and practical value in matters of the analysis of the development of automobile service enterprises and any other types of activities, the formation and establishment of their economic potential, as well as in the context of the analysis of the basic prerequisites for the development of such enterprises. From this standpoint, the chosen methodological approach to the study will help expand understanding of the issues of economic development of enterprises, the formation of their economic potential so that in the future they will be capable of giving an objective assessment of their activities and predicting the success of passing certain stages of development. This will be essential in matters of subsequent planning of activities and consideration of the fundamental moments of the formation of the economic potential of an enterprise of any kind of activity.

RESULTS AND DISCUSSION

Bosch vehicle service enterprises are operating in the automotive industry in more than 160 countries around the world. The high quality of services provided by the specialists of these enterprises, and their diversity has a significant impact on the development of the automotive after-sales service world-wide. In this regard, the formation of the economic potential of this enterprise appears as extremely important both from a theoretical and practical standpoint. The economic potential of the enterprise contributes to the reproduction of all its resources and factors affecting reproduction while increasing opportunities in the consumption market. The economic potential of the enterprise (E) can be represented in the form of the following functional dependence (1):

$$E = f\{P_f, P_i, P_{pr}\}, \quad (1)$$

where P_f – potential of the enterprise in the financial sector, P_i – investment potential, P_{pr} – property potential of the enterprise.

To assess the financial potential of the Bosch network of service enterprises, it is necessary to consider the possibility of channelling the company's funds to the effective development of all existing service centres in the automotive sector. For a more accurate assessment of the financial potential of Bosch, an in-depth analysis of the financial condition and an accurate assessment of the total monetary assets of the Bosch service centre network are required. The calculation of the financial potential of the company Bosch is made according to the formula (2):

$$P_f = C_p\text{-}C_n\text{-}I_r^{rp}, \quad (2)$$

where C_p – positive cash flow of the enterprise, C_n – negative cash flow of the enterprise, I_r^{rp} – retained income for the reporting period.

The last parameter is reflected in the financial statements of enterprises exclusively in the form of losses; therefore, it should be subtracted from the total amount. When determining the investment potential of an enterprise, one should factor in the sources of investment, both internal and external, and the nominal value of the investment potential of the enterprise. The calculation formula in this case will look as follows (3):

$$P_{pr} = f\{I_i, I_e, I_n\}, \quad (3)$$

where I_i – internal investment sources and enterprise opportunities, I_e – external investment opportunities of the enterprise, I_n – nominal investment potential of the enterprise.

The company's investment resources are calculated with consideration of possible losses associated with the refusal of investors from previously assumed investment obligations. Thus, this calculated component is inconsistent and subject to change. The property potential of the enterprise (P_{pr}) is determined by the property owned by the enterprise. In a specific case with a network of Bosch service enterprises, the property potential of the enterprise is not subject to accurate assessment due to the constant updating of the property assets of the enterprise. It should be noted that the enterprises of this company regularly open and modernise in different countries of the world, which positively affects the development and increase of the property potential of the entire network at large, and this, in turn, has a beneficial effect on the processes of forming the economic potential of Bosch. Figure **1** shows the changes in the number of employees of service enterprises of the Bosch Service vehicle service station network in Ukraine for the period from 1993 to 2017.

Figure **2** shows the changes in the financial turnover indicators (in million euros) of Bosch Service vehicle service stations in Ukraine for the period from 1993 to 2017.

The presented data clearly demonstrate the growth dynamics of the labour and financial resources of the network of Bosch service enterprises in Ukraine for the period from 1993 to 2017. The positive dynamics of changes in the property potential of the enterprise, directly and indirectly related to labour potential, as well as the financial potential, directly related to the total turnover of the network of service centres, favourably affects changes in the economic potential of the entire Bosch company, which is clearly reflected in the emergence of new jobs and capital growth. The formation of the economic potential of an enterprise occurs constantly, as its basic resources change: material, property, investment, financial. The growth of economic potential is accompanied by structural changes in the organisation of the enterprise, associated with the emergence of new jobs, the introduction of new sources of financing and marketing research of the prospects for its development. Altogether this has a positive effect on the functioning of the enterprise and its financial and economic stability

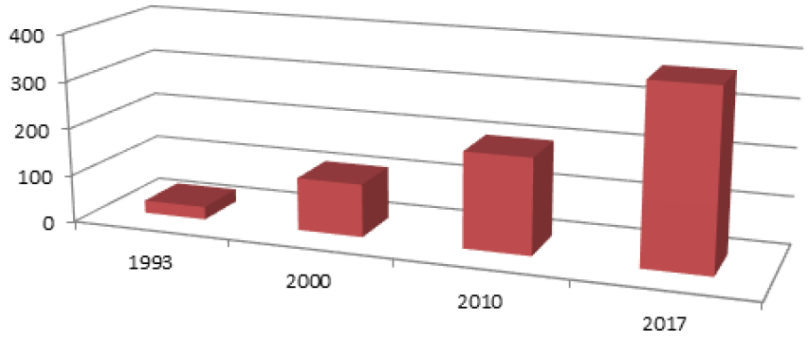

Figure 1: Changes in the number of employees in service enterprises of the Bosch Service vehicle service station network in Ukraine for the period from 1993 to 2017.

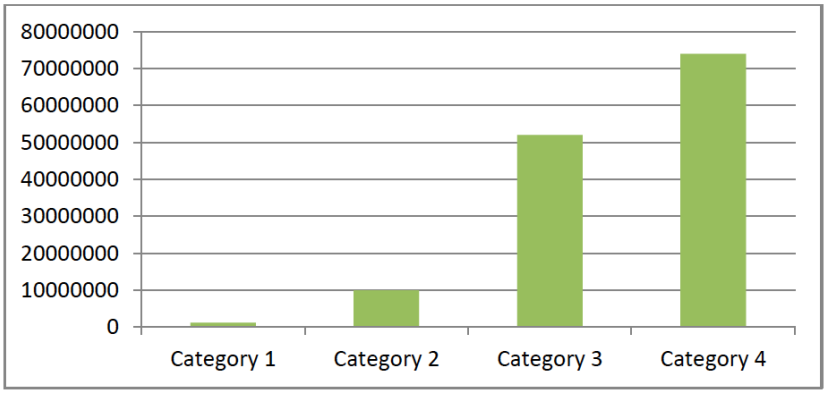

Figure 2: Changes in financial turnover indicators (in million euros) of Bosch Service vehicle service stations in Ukraine for the period from 1993 to 2017.

in the existing market conditions (Raizberg, Lozovsky and Starodubtseva 2006).

The matters of formation of the economic potential of the enterprise are being discussed in the scientific and economic literature quite extensively. The authors pay close attention to investigation of the possibilities of expanding the economic opportunities of enterprises of any area of activity and increasing their potential in conditions of an ever-changing economic situation. Specifically, research by several foreign authors is being carried out with respect to Bosch and the possibilities of studying its economic potential. Thus, B. Otto (2019), in the context of data analysis for assessment of the economic potential of the enterprise, notes the following: "As a prerequisite for meeting strategic business requirements, such as regulatory compliance, business integration or integrated customer management, analysis of the economic development of the enterprise includes many activities. One of the main areas of activity is the development and support of the architecture of basic data" (Otto 2019). The author's study emphasises the importance of analysing a large amount of data to determine the direction of research on the economic potential of any enterprise.

In turn, A. Ghasemi *et al.* (2020), upon conducting a topical assessment of distribution and planning models at the Bosch factory in Germany, came to the conclusion that "timely and high-quality systematisation of various aspects of the company's activities favourably affects its economic potential and plays a crucial role in production planning from the standpoint of expectations of the greatest profit". Ukrainian researchers of this issue also note the complexity of the formation of the economic potential of the enterprise and the dependence of this aspect on several factors. In their studies, P.I. Razinkov and O.P. Razinkova (2016) emphasise that "the formation of the economic potential of an enterprise should not be regarded as a reproductive function of property, but as the efficiency of the use of its assets when they are transferred from a material form to money". In another study, these authors address the importance of enterprise resources and their connection with the formation of its economic potential. They write, "The most important step in the implementation of the methodology for assessing the level of planning and the introduction of the resource potential of an enterprise can be considered not only the calculation of the main indicators of its activity, but also the accurate determination of their actual values, which allows to correctly conduct its resource and economic planning" (Razinkov and Razinkova 2017).

T.G. Sheshukova and E.V. Kolesen (2011) also acknowledge the importance of a resource-based approach in assessing the potential for building the economic potential of an enterprise. The authors write, "The use of the category of economic potential of an enterprise has several advantages. First of all, it allows to create a comprehensive and ongoing assessment of the state of the economy in a given industry, furthermore, it allows to compare enterprises of different industries with each other and, finally, the determination of the economic potential of enterprises located in a certain territory allows to judge on the economic potential of the entire region" (Sheshukova and Kolesen 2011). Thus, the category of economic potential of enterprises is of great importance both for the enterprise itself and for the entire sphere and industry to which this enterprise belongs. E.V. Kolesen (2012) notes the significant instability of the current economic situation in the world, and therefore points out a necessity for further research and determination of factors affecting the economic situation and the economic potential of individual enterprises. According to the scientist, "management decisions have a significant impact on the growth of the economic potential of an individual enterprise operating in the economic sphere. In the current, dynamically developing economic situation, the effectiveness of management decisions has a significant impact on the activities of the enterprise and the formation of its economic potential.

In turn, E.B. Figurnov (1981) highlights the particular importance of the production potential of the enterprise in assessing potential economic opportunities. Formulating the definition of the production potential of an enterprise, the scientist focuses on the fact that "production resources are described by production potential, as well as their qualitative and quantitative parameters. The latter, in turn, determine the maximum possible resources of the enterprise for the production of material goods at a single point in time" (Figurnov 1981, Costa *et al.* 2017, Yaman *et al.* 2017). At the same time, P.V. Ignatovsky (1980) also interprets the concept of the economic potential of an enterprise as its ability to actively create new values and solve pressing issues of its own functioning. According to the researcher, the formation of the economic potential of the enterprise is closely related to its potential in increasing its resources, expanding the material park of equipment, and

improving technical equipment. The development of the economic potential of the enterprise is closely connected with the issues of improving tools and labour conditions, improving the scientific and technical arsenal, increasing the amount of raw materials consumed and the output of the enterprise (Witell *et al.* 2017, Gaiardelli *et al.* 2018, Trela *et al.* 2018).

Thus, the foregoing suggests that the views of scientists on the issues of the economic potential of the enterprise, its formation and development differ in many respects due to the complexity and breadth of the issue under study. The interconnection of many factors that have a significant impact on the formation of the economic potential of an enterprise of any field of activity, determines the difference in the assessments of researchers of both the very concept of economic potential and the features of its formation and becoming. The formation of the economic potential of any enterprise occurs in close connection with the development of the economic situation both within the enterprise itself and in the industry where the enterprise operates, as well as in the state at large. Further research on this issue will significantly enrich the current system of assessing the criteria for the development of the enterprise and the formation of its economic potential.

CONCLUSIONS

The study of the formation of the economic potential of the enterprise on the example of a network of service centres for servicing automobile transport company Bosch led to the following conclusions. The economic potential of the Bosch service centre network is determined by the activities of more than 16,000 automotive service enterprises in more than 160 countries. In matters of the formation of the economic potential of this company, many components play a key role, in particular: the financial potential of the enterprise, its property potential and investment potential. These components of the economic potential in the context of the Bosch Service vehicle service station network are constantly changing due to the unstable economic situations in the countries where Bosch operates, as well as the constant changes in the work of the vehicle service centres themselves. At the current time, the service enterprises of this company provide consumers with a wide scope of services for car maintenance, and this scope of services is regularly expanding and includes new services or improves the quality of the already existing ones. With that, attention should be paid to the fact that, in general, Bosch enterprises are constantly increasing the number of jobs and with them the production capacities and financial turnover of the enterprise. It can be concluded that at the current time, a sufficiently high economic potential of Bosch has been formed, with regard specifically to the network of car service enterprises, and there are persistent tendencies to solidify and strengthen this potential every year. In digital terms, the annual turnover of the Bosch vehicle service network worldwide is estimated at billions of euros and is increasing every year. This is facilitated by the continuous implementation of the latest production and technological solutions aimed at improving the quality of service at Bosch Service vehicle service stations all over the world.

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