

Diversification and its Role in Improving Hotel Industry Businesses Competitiveness

Natalia Goryushkina¹, Lyudmila Petrova², Tamara Khudyakova³, Nadezhda Tchuykova⁴,

Nadezhda Klimovskikh⁵, Natalia Voinova⁶

¹Southwest State University, Kursk, Russia

²Altai State University, Barnaul, Barnaul, Russian Federation

³Voronezh State Pedagogical University, Voronezh, Russian Federation

⁴Plekhanov Russian University of Economics, Moscow, Russian Federation

⁵Kuban State Agrarian University named after I.T. Trubilin, Krasnodar, Russian Federation

⁶Kursk State University, Kursk, Russian Federation

Article Info Volume 83

Page Number: 582 - 591

Publication Issue: May - June 2020

Article History

Article Received: 11 August 2019 Revised: 18 November 2019 Accepted: 23 January 2020 Publication: 09 May 2020

Abstract:

In modern market economy conditions, the hotel industry is an integral part of the tourism industry and the most important catalyst for the socio-economic development of the regions of the Russian Federation. This article investigates the essence of diversification and evaluates its role in the process of improving the competitiveness of hotel industry facilities. Generalizing various terminological approaches, diversification in hospitality industry is considered as the development of hotel industry by expanding the range of services and the possibilities of their implementation, identification of the strengths and their further development, optimization of the use of capital and all types of resources, application of new technologies, market expansion, and creation of hotel chains. Diversification as a means of enhancing the competitive advantages of a hotel is considered. The authors emphasize the fact that every hotel business should work out the most appropriate diversification strategy, based on the stated objectives. Based on the conducted research it is concluded that diversification allows hotels to ensure survival by obtaining a guaranteed level of profit, acquiring a sustainable position in the market of hotel services.

Keywords: business activities, diversification, hotel industry, hotel product, competitiveness.

I. INTRODUCTION

A modern hotel and restaurant complex plays an important role in the economy of the Russian Federation, contributing to the satisfaction of the primary needs of travellers in accommodation and

meals. However, according to official data, Russia continues to lag behind its European partners in terms of total number of rooms per capita. In accordance with statistical data for 2018, average hotel room occupancy rate was 54% [1]. However, the majority of hoteliers complain of a slight decrease in customers'



demand for hotel services.

One of the possible ways to improve the effectiveness of hotel businesses in the country is to diversify them (lat. diversus – different + facere - do).

II. METHODOLOGY

The works of foreign and Russian researchers and practitioners on the issues of the justification of the necessity of hotel services diversification and practices of hotel services diversification, such as the works of A. R. Garifullin, A. V. Makarov [2], A. Kovalev [3], E. V. Baumung [4] and I. Ansoff [5] are used as a theoretical basis of the study.

While working on the article, the authors applied comparative and system approaches, methods of analysis and synthesis, historical and logic analysis. Analytical studies and statistical materials of the United Nations World Tourism Organization as well as scientific researches of foreign and Russian scientists, and information from the Internet were used as the sources of information on the subject of the research.

III. DISCUSSION

There is no uniform understanding of the term 'diversification' in the scientific literature. The clearest definition of this concept is presented in Garifullin and Makarov's work, where the authors define diversification as a corporate level strategy developed to ensure long-term competitiveness of an enterprise, involving the formation of business sectors and areas in technologically new areas of activity for a given enterprise [2, p. 29]. According to A. Kovalev, who gave a different definition of the term, 'diversification' is a business strategy based on the concentration, dissipation or application of new capital, new activities, or a new product range in order to maintain and enhance business sustainability of an

enterprise taking into account possible risks [3, p. 112]. In his work, E. V. Baumung argues that diversification is an ideal way to prevent possible failures and losses. In his interpretation, diversification is the rejection of a narrow specialization, development of new areas of activity, expansion of the range of goods and services [4, p. 145-146]. According to I. Ansoff, diversification is a term applied to the process of reallocation of the resources of an enterprise into other areas of activity that significantly differ from the former ones [5, p. 218].

Generalizing various terminological approaches, we propose to interpret diversification in the hospitality industry as the development of a hotel business by expanding the range of services and their application possibilities, identifying business strengths and their development, optimizing the use of capital and all types of resources, applying new technologies, expanding market, and creating hotel chains.

IV. RESULTS

Hospitality is one of the fundamental concepts of human civilization. The main hotel services include accommodation and catering. Providing these two services is the main function of hospitality businesses. However, each year sees the continuing increase in the number of additional hotel services which include booking hotel rooms, arrival/departure services, car parking, etc. Competition in the field of hospitality is becoming more and more relentless so the choice of the right diversification strategy for hotel businesses is one of the most important factors for their sustainability [11; 12]. In the event of deterioration in the business environment, diversification allows hotels to reduce possible risks and keep afloat. However, even in case when a hotel business successfully achieves the goals set, it makes sense to apply diversification techniques if the amount of hotel profit is not sufficient to implement the plans for expanding



current activities.

It must be admitted that the reasons for applying diversification strategy are different for different types of hotel businesses. In addition to the above mentioned ones, application of diversification strategy can be caused by the desire of a hotelier to use the most of the hotel possibilities and the staff as well as by the need to find new areas for investing the capital, expanding the business, developing new segments of the hotel services market, adapting to changing business environment, etc.

Competitiveness in the market of hotel services is a Increasing rather acute problem. competitive advantages is the main task of improving business activities, the solution of which contributes not only to strengthening the business position in accommodation services market, but also to attracting new customers as well as making additional profit [13-25]. When applying diversification strategy, there is a possibility to reallocate resources and prevent the closure of a hotel business. In addition, in difficult economic conditions, implementation of allows increasing diversification strategy the effectiveness of the use of the available resources, ensuring full occupancy of hotel rooms, creating new jobs, actively countervailing competitors (e.g., buying their businesses, attracting their customers), and reducing dependence on the partners.

In his works, M. Porter indicates that the strategy of competitive struggle can be considered as defensive or offensive actions aimed at achieving strong position in the industry, successfully overcoming five competitive forces and, in so doing, at obtaining higher returns on investments [26-39]. Hotel businesses demonstrate many different ways of achieving their goals but the only possible way to surpass competitors is to apply three internally consistent and successful strategies:

- 1) minimizing costs;
- 2) differentiation;
- 3) concentration [6, p. 35].

Another well-known researcher, I. Ansoff, identifies other types of marketing strategies, dividing them into four large groups:

- 1) a market penetration strategy;
- 2) a market expansion strategy;
- 3) a product development strategy;
- 4) a diversification strategy [5, p. 13].

The business growth strategy is equally well known. According to F. Kotler, it includes:

- 1) a strategy of concentrated growth;
- 2) an integrated growth strategy;
- 3) a reduction strategy;
- 4) a diversified growth strategy [7, p. 106].

A particular company should choose the most appropriate strategy. The choice of strategy is largely determined by the character of the hotel business goal. In case when a hotel business has an offensive goal, it should enforce an 'expansionary' policy, introducing innovations [40-56]. The 'deployment' strategy is a success when a hotel expands the range of services. A defensive goal of a hotel business predetermines the substitution of one type of activity for another one in the context of a declining demand for hotel services. The goal of 'winding-down' requires searching for a new area for growth.

When implementing a diversification strategy, a hotel business has the possibility to reallocate resources, thereby withstand the most difficult economic conditions, increase the effectiveness of using existing



labour potential, ensure full occupancy of hotel rooms, adapt to the rapidly changing market conditions, actively withstand competitors, including buying their businesses, attracting their customers, reducing dependence on partners [57-59].

In this regard, diversification is one of the main business development strategies. It allows hotels to achieve their goals, starting with ensuring survival by obtaining a guaranteed level of profit and ending with acquiring a dominant position in the hotel services market.

With respect to hotel industry businesses, it is advisable to consider different types of diversification. The most well-known forms of diversification are centered, horizontal and conglomerate ones. In the first form, hotels expand the range of services offered; in the second one, there is a partial transfer of hotels to the industry related to the main type of activity; in the third form, a key competence allows businesses to expand the range of additional services [8, p. 103].

One of the characteristic features of the economic activities of hotel businesses is the seasonality of demand for services. Seasonality, or seasonal variations, is considered as a more or less stable pattern of intra-annual dynamics of socio-economic phenomena.

The reasons for seasonality of hotels are characteristic features of services, customers' demand, changes in expenditures depending on changes in climatic conditions at different seasons, etc. In other words, seasonality is a stable pattern of the trends of intraannual and constantly recurring fluctuations in supply and demand. Comparing the graphs of occupancy of a resort hotel and hotels located in business centers, it can be concluded that the highest occupancy rate of a resort hotel is from July through August, which is called 'a pick season'. In a business-oriented hotel,

there are two calendar segments: February - April and September - November, which are distinguished by the highest level of occupancy. In a resort hotel, the period from December to early March is a kind of 'low season', and a 'low season' in a hotel of a industrial centre coincides with the period of the 'pick season' of a resort hotel.

Introduction of the following measures of a form of centered diversification is most appropriate for developing the measures for smoothing seasonal fluctuations in the demand for hotel services.

- 1) Seasonal prices policy. Introduction of progressive price patterns in order to take into account the changing preferences of consumers as well as their ability to respond to prices.
- 2) The use of media to form demand for services and attract customers by informing them about the attributes and qualities of provided services.
- 3) Expansion of the range of services as well as an increase in the scope of services in all categories.
- 4) Introduction of progressive types of customer services.
- 5) Comprehensive improvement of services provision.

Each approach has its strengths and weaknesses, considering which it is possible to find 'the golden mean'. Unfortunately, sales promotion measures nearly always require additional investments, so not all hotel businesses can implement them. The hospitality industry is constantly searching for mechanisms of improving competitiveness and work effectiveness.

Diversified hotel businesses have a number of advantages in relation to the hotels focused on one sphere of activities. Meanwhile, diversification implementation has its disadvantages.



Table 1. Advantages and disadvantages of diversification strategy implementation

Disadvantages of diversification	Advantages of diversification
The presence of problems in planning and budgeting the development of various hotel activities; Poor controllability of various unrelated business areas;	Financial sustainability of a hotel business in the event of a crisis; The possibility of effective distribution of funds between the areas of activities with the aim of investing in new types of hotel services;
The risks of investing in unprofitable areas of business, which will reduce the overall profit and profitability of the company;	Appearance of advantages in the range of services over other hotels, due to the possibility of offering extended range of new ones;
The emergence of difficulties in the centralization of the processes and calculations between different business areas.	The possibility of borrowing from different companies, areas.

Diversification in this regard is an important direction in the development strategy of hotel businesses. It allows hotels to reduce business risks, 'keep afloat' in case of deterioration of economic indicators by type of activities, since possible failures in one area are compensated by success in others; flexibly reallocate resources; profitably invest free funds in other sectors, if there is lack of the potential for growth and making a profit; improve and expand the range of hotel services in existing markets; increase the effectiveness of using the accumulated potential, ensure full hotel occupancy; adapt to market conditions, actively countervail competitors, reduce dependence on partners, etc.

The list of areas in which a hotel can implement diversification strategy is multifaceted. Each hotel business chooses the most appropriate area. Most often, hotel companies resort to centered diversification, expanding the list of their services:

• Catering (cafes, restaurants, bars).

- Sphere of beauty industry (beauty salons, spacentres).
- Sphere of consumer services (dry cleaning, clothing and footwear repair shops).
- Sphere of retail trade (souvenir shops, jewelry stores, shopping centres).
- Tourist business (travel arrangements, plane and train tickets sale).
- Scope of financial services (bank branches, insurance companies).
- Cultural leisure activities (excursions, organization of art galleries, thematic exhibitions).
- Entertainment sphere (cinemas, water parks, children's entertainment centres, bowling, billiard).
- Health and wellness sphere (fitness centres, swimming pools, skating rinks, etc.) and other areas.
- Transportation services (meetings/seeing off at airports, railway stations; city taxi services) [9,



p. 198; 10, p. 172-173].

V. CONCLUSION

Hotel business in Russia remains attractive both for businessmen and investors. Diversification is an important element of the development strategy of hotel businesses. It is diversification that allows hotels to ensure survival by means of achieving a guaranteed profit level, economic and financial sustainability; and in some cases to gain a dominant position in the hotel services market. Applying diversification strategy in hotel businesses has its own characteristic features. The development strategy of a hotel business depends entirely on the type and timing of the diversification measures. Hotels diversification can provide them with significant competitive advantages, which results in a synergistic effect.

REFERENCES

- Varlamov, R. Hotel market analysis for 2019 // URL: https://alterainvest.ru/rus/blogi/analizgostinichnogo-rynka-2019 / (date of access – 01. 02. 2019)
- Makarov, A. V., Garifullin, A. R. (2010). Diversification as a tool for the development of a modern enterprise // Journal of the Ural State University of Economics. 2010. №1 (27). Pp. 27-36.
- 3. Kovalev, A. (2010). The essence of diversification of industrial enterprises and generalized methods for its performance assessing. Ekonomicny analiz. 2010. No. 5. Pp. 111-113.
- Baumung, E. V. (2012). Stages of enterprise diversification development. Molodoy uchenyy. 2012. №3. Pp. 144-150.
- 5. Ansoff I. (1999). New corporate strategy. M.: Peter, 1999. 413 p. URL: http://www.kdmt46.ru/turizm (date of access 01/09/2019)
- 6. Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance.

- The Free Press, New York. 1985. 668 p.
- 7. Cost management at an enterprise / Ed. G. Krayukhina. SPb.: Peter, 2015. 592 p.
- 8. Kotler, Ph., Keller, L. Marketing management. 14th ed. 808 p.
- 9. Goryushkina, N. E. (2015). The role of diversification in improving the competitiveness of hotel industry businesses // Problems of modern society development: Collection of scientific papers of the 3rd All-Russian Scientific-Practical Conference. Kursk, 2015. Pp. 198-200.
- 10. Goryushkina, N. E. (2015). The essence of diversification and its role in improving the hotels competitiveness. Trends in the development of modern society: managerial, legal, economic and social aspects. Collection of scientific articles of the 5th International Scientific and Practical Conference. Kursk, 2015. Pp. 172-173.
- 11. Shatunova O., Anisimova T., Sabirova F., Kalimullina O. (2019) STEAM as an Innovative Educational Technology. Journal of Social Studies Education Research. Vol. 10 (2), 131-144.
- 12. Kashirskaya, L., Voronkova, O., Sitnov, A., Shichiyakh, R., Kudinova, M., & Sycheva, I. (2019). Rural development through the formation of zonal agro-ecological clusters. Journal of Environmental Management and Tourism, 10(3), 651-659. doi:10.14505/jemt.v10.3(35).19
- Frolova, I., Voronkova, O., Islamutdinova, D., Gordeyeva, O., Fedulova, I., & Zhminko, A. (2019). Ecologization of agroindustrial production: Organizational and economic transformations. Journal of Environmental Management and Tourism, 10(3), 622-630. doi:10.14505/jemt.v10.3(35).16
- 14. Mullakhmetov, K. S., Sadriev, R. D., Bikulov, R. A., & Akhmetshin, E. M. (2018). Sociocultural Factors of Transforming Administration and Control in the Management of Economic and Social Systems under Modern Conditions. Paper presented at the Proceedings of the 31st International Business Information Management



- Association Conference Innovation Management and Education Excellence through Vision 2020, 3573-3581.
- 15. Valentim, L. C. G., Lucena, H. D. A. N., Amaral, I. B. C., Couto, L. C., & Reis, A. B. (2019). Short fiber fluff cellulose industry: Economic viability and energy potential. [INDÚSTRIA DE CELULOSE FLUFF DE FIBRA CURTA: VIABILIDADE ECONÔMICA E POTENCIAL ENERGÉTICO] Periodico Tche Quimica, 16(31), 49-58.
- 16. Molchanov, N. N., Korableva, O. N., Muraveve, O., & Galay, N. (2017). Neuromarketing as an innovative approach to market research of consumer behavior. Paper presented at the Proceedings of the 29th International Business Information Management Association Conference Education Excellence and Innovation Management through Vision 2020: From Regional Development Sustainability to Global Economic Growth, 2489-2499.
- 17. Sadriev, R. D., Mullakhmetov, K. S., & Akhmetshin, E. M. (2016). Russian business medium: Competition problems. International Journal of Economics and Financial Issues, 6(8Special Issue), 30-38.
- 18. Ozen, E., Grima, S. 2018. Analysis of the Influencing Factors on the Farmers' Take-up of Greenhouse Agricultural Insurance Cover: A Case Study. International Journal of Economics & Business Administration, 6(4), 14-33.
- 19. Vokshi, N.B. 2018. The Connection between Accounting and Taxation from the Perspective of Preparing the Financial Statements. International Journal of Economics & Business Administration, 6(4), 34-47.
- 20. Kuznetsova, I. G., Goloshchapova, L. V., Ivashina, N. S., Shichiyakh, R. A., Petrova, L. I., & Tkachev, B. P. (2019). The paradigm of human capital development capable of adapting innovations in the transition to a digital economy. International Journal of Civil Engineering and Technology,

- 10(2), 1408-1417.
- 21. Grakhova, S., Fayzrakhmanov, I., Zhundibayeva, A., Yakutina, M., Sharipov, R., & Stepykin, N. (2019). Information, pedagogical and facilitation technologies in teaching a special philology class at non-specialized faculties of higher education institutions. International Journal of Innovative Technology and Exploring Engineering, 8(12), 1613-1620. doi:10.35940/ijitee.L3154.1081219
- 22. Panfilova, E., Dzenzeliuk, N., Domnina, O., Morgunova, N., & Zatsarinnaya, E. (2020). The impact of cost allocation on key decisions of supply chain participants. International Journal of Supply Chain Management, 9(1), 552-558.
- 23. Frolova, I. I., Nosov, V. V., Zavyalova, N. B., Dorofeev, A. E., Vorozheykina, T. M., & Petrova, L. I. (2020). Labor opportunism as a blocking factor for the innovative development of industrial enterprises. Entrepreneurship and Sustainability Issues, 7(3), 2228-2242. doi:10.9770/jesi.2020.7.3(51)
- 24. Kireev, B., Zhundibayeva, A., & Aktanova, A. (2019). Distance learning at higher education institutions: Results of an experiment. Journal of Social Studies Education Research, 10(3), 387-403.
- 25. Gabidullina, F. I., Korganbekov, B. S., Makarova, V. F., Zakirov, R. A., & Kayumova, G. F. (2019). Concept «teacher» in language consciousness of students of philological faculty. XLinguae, 12(3), 45-54. doi:10.18355/XL.2019.12.03.04
- Fedulova, I., Ivanova, V., Atyukova, O., & Nosov, V. (2019). Inclusive education as a basis for sustainable development of society. Journal of Social Studies Education Research, 10(3), 118-135.
- 27. Dautov, G. F., Mingazova, L., Sayfulina, F. S., & Kayumova, G. F. (2018). Written heritage of the golden horde. [Patrimonio escrito de la horda de oro] Opcion, 34(Special Issue 14), 895-911.
- 28. Filatova, I., Shabalov, M., & Nikolaichuk, L. (2019). Regulation methods in natural monopoly



- markets case of russian gas network companies. International Journal of Engineering Research and Technology, 12(5), 624-630.
- 29. Akhtarieva, R., Ibragimova, E., & Tarasova, A. (2019). Dynamics of acculturation processes among foreign students in the multi-ethnic educational environment of the higher educational establishment. Journal of Social Studies Education Research, 10(3), 82-102
- 30. Saenko, N., Voronkova, O., Zatsarinnaya, E., & Mikhailova, M. (2020). Philosophical and cultural foundations of the concept of "nihitogenesis". Journal of Social Studies Education Research, 11(1), 88-103.
- 31. Sagdieva, R., Husnutdinov, D., Mirzagitov, R., & Galiullin, R. (2019). Kinship terms as proof of genetic relationship. Journal of Social Studies Education Research, 10(3), 103-117.
- 32. Voronkova, O., Sycheva, I., Kovaleva, I., Khasanova, A., Gorovoy, S., & Vorozheykina, T. (2019). Assessing the environmental impact of the intensification of agricultural production. Journal of Environmental Management and Tourism, 10(3), 697-705. doi:10.14505/jemt.v10.3(35).24
- 33. Dunets, A. N., Yankovskaya, V. V., Plisova, A. B., Mikhailova, M. V., Vakhrushev, I. B., & Aleshko, R. A. (2020). Health tourism in low mountains: A case study. Entrepreneurship and Sustainability Issues, 7(3), 2213-2227. doi:10.9770/jesi.2020.7.3(50)
- 34. Tsvetkova, M., Arutyunyan, M., Saenko, N., Shramko, L., & Kalimullin, D. (2019). Incorporation of philosophical ideas in science fiction literature. [Incorporación de ideas filosóficas en la literatura de ciencia ficción] Opcion, 35(Special Issue 23), 598-612.
- 35. Johnson, C., & Hinton, H. (2019). Toward a Brillant Diversity. Journal of Culture and Values in Education, 2(1), 56-70. Retrieved from http://cultureandvalues.org/index.php/JCV/article/view/27
- 36. Magsumov, T.A. (2019). Apprenticeship in

- secondary vocational schools during the economic modernization in late imperial Russia. Part 2. *European Journal of Contemporary Education*, 8(1), 215-221. doi: 10.13187/ejced.2019.1.215
- 37. Strunc, A. (2019). The Politics of Culture. Journal of Culture and Values in Education, 2(1), 71-80. Retrieved from http://cultureandvalues.org/index.php/JCV/article/view/26
- 38. Malyshkov, G. B., Nikolaichuk, L. A., & Sinkov, L. S. (2019). Legislative regulation of waste management system development in russian federation. International Journal of Engineering Research and Technology, 12(5), 631-635.
- 39. Vasilev, B., & Tung, L. V. (2019). Research methods of V/F control for matrix converter use direct space vector modulation. International Journal of Electrical and Computer Engineering, 9(6), 5115-5124. http://doi:10.11591/ijece.v9i6.pp5115-5124
- 40. Masood, O.; Tvaronavičienė, M.; Javaria, K. 2019. Impact of oil prices on stock return: evidence from G7 countries, Insights into Regional Development 1(2): 129-137. https://doi.org/10.9770/ird.2019.1.2(4)
- 41. Calderon Berumen, F. (2019). Resisting Assimilation to the Melting Pot:. Journal of Culture and Values in Education, 2(1), 81-95. Retrieved from http://cultureandvalues.org/index.php/JCV/article/view/25
- 42. Sabitova, A., Salimova, D., Ibragimova, E. (2018) Motivated and unmotivated violations from the norm in children's books in organizing extracurricular reading. Journal of Social Studies Education Research, 9(2), c. 306-316
- 43. Ahtarieva, R., Ibragimova, E., Sattarova, G., Turzhanova, G. (2018) Integration as a form of acculturation of foreign student future teacher in the polyethnic educational environment of university. Journal of Social Studies Education Research, 9(3), pp. 317-331



- 44. Bekmansurov, R. H., Kovalenko, K. E., Utkina, K. M., Novikova, Y. A., Zatsarinnaya, E. I., & Rozentsvaig, A. I. (2019). State support for persons with disabilities in the field of entrepreneurship. Journal of Entrepreneurship Education, 22(S2), 1-9.
- 45. Kayumova, G., Sheymardanov, S., Akhtarieva, R., & Zhundibayeva, A. (2019). Developing creative potential of a schoolchild by means of native language. *Journal of Social Studies Education Research*, 10(1), 81-92.
- Akhmetshin, E. M., Vasilev, V. L., Mironov, D. S., Zatsarinnaya, E. I., Romanova, M. V., & Yumashev, A. V. (2018). Internal control system in enterprise management: Analysis and interaction matrices. European Research Studies Journal, 21(2), 728-740.
- 47. Glotko, A. V., Polyakova, A. G., Kuznetsova, M. Y., Kovalenko, K. E., Shichiyakh, R. A., & Melnik, M. V. (2020). Main trends of government regulation of sectoral digitalization. Entrepreneurship and Sustainability Issues, 7(3), 2181-2195. doi:10.9770/jesi.2020.7.3(48)
- 48. Franco, V. D. A., & Bedin, E. (2019). The chemistry teaching and the high school student: A case study in the state basic education of esteio city, brazil. [O ensino de química e o aluno do ensino médio: Um estudo de caso na educação básica estadual do Município de Esteio, Brasil] Periodico Tche Quimica, 16(33), 118-129.
- Shaytura, S. V., Knyazeva, M. D., Feoktistova, V. M., Vintova, T. A., Titov, V. A., & Kozhaev, Y. P. (2018). Philosophy of information fields. International Journal of Civil Engineering and Technology, 9(13), 127-136.
- Dobrovolskienė, N.; Tvaronavičienė, M.; Tamošiūnienė, R. 2017. Tackling projects on sustainability: a Lithuanian case study, Entrepreneurship and Sustainability Issues 4(4): 477-488. http://doi.org/10.9770/jesi.2017.4.4(6)
- 51. Vasilev, B. (2019). Analysis and improvement of the efficiency of frequency converters with pulse

- width modulation. International Journal of Electrical and Computer Engineering, 9(4), 2314-2320. http://doi:10.11591/ijece.v9i4.pp2314-2320
- Miloradov, K. A., Romanishina, T. S., Kovalenko,
 A. A., Bondarenko, N. G., & Andrianova, J. V.
 (2018). An efficient strategy for the development of tourism at regional level. European Research Studies Journal, 21(4), 208-221.
- 53. Movchan, I. B., Yakovleva, A. A., & Daniliev, S. M. (2019). Parametric decoding and approximated estimations in engineering geophysics with the localization of seismic risk zones on the example of northern part of kola peninsula. Paper presented at the 15th Conference and Exhibition Engineering and Mining Geophysics 2019, Gelendzhik 2019, 188-198.
- 54. Puryaev, A. S., Puryaeva, Z. A., Kharisova, A. R., & Puryaev, A. A. (2019). Investigation and explanation of mathematical tooling for accounting non-economic characteristics during project effectiveness' investment assessing process. IOP Conference Series: Materials Science 570, Engineering, 012074. and https://doi.org/10.1088/1757-899X/570/1/012074
- 55. Debbarma, R., & Purkayasthaî, S. (2019). Expansion of area under rubber plantation and its distribution in tripura, india. Space and Culture, India, 6(5), 56-70. doi:10.20896/SACI.V6I5.344
- 56. Kuznetsova, I. G., Surikov, Y. N., Votchel, L. M., Aleynikova, M. Y., Voronkova, O. Y., & Shichiyakh, R. A. (2019). The methodological aspect of human capital formation in the digital economy. International Journal of Mechanical Engineering and Technology, 10(2), 1020-1030.
- 57. Ivygina, A., Pupysheva, E., Mukhametshina, D. (2018) The role of local history texts in implementing the culturological approach to teaching the Russian language: The basic general education level. Journal of Social Studies Education Research, 9(2), pp. 160-171
- 58. Yemelyanov, V. A., Fatkulin, A. R., Nedelkin, A. A., Titov, V. A., & Degtyarev, A. V. (2019).



Software for weight estimation of the transported liquid iron. Paper presented at the Proceedings of the 2019 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering, ElConRus 2019, 381-384. doi:10.1109/EIConRus.2019.8657011

59. Nefedov, Y., Kochneva, O., & Heide, G. (2019). The study of the ontogenesis of crystals of the ural type diamonds by the method of IR-spectrometry. Paper presented at the IOP Conference Series: Materials Science and Engineering, 511(1) doi:10.1088/1757-899X/511/1/012041