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INCREASE OF COMPETITIVENESS OF THE CONSTRUCTION ENTERPRISES IN THE CONDITIONS GEOPOLITICAL TRANSFORMATIONS

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The object of research is the competitiveness of construction enterprises in the context of geopolitical transformations. One of the unresolved problems in this area is the assessment of the influence of external factors on the development of enterprises in the construction industry. Existing methods for assessing competitiveness are quite voluminous and time-consuming and focus more on the economic development of construction enterprises and their competitors. Existing methods do not take into account geopolitical changes in the external environment. That is why, using the matrix method, an express methodology is developed that allows to assess the impact of geopolitical transformations on the level of competitiveness. The study also used cluster analysis methods, which allow to divide the regions of Ukraine into groups according to the signs of construction intensity and the impact of movement of internally displaced persons. The first is the largest with the highest development of the construction industry, the second is the smallest with the highest development of the construction industry and a high number of internally displaced persons and a third – with a low development of the construction industry and a low number of internally displaced persons. Also in the process of research the matrix approach is used, which makes it possible to obtain information about the strengths and weaknesses of the construction company in the aspect of geopolitical transformations, and most importantly to assess how other enterprises cope with the same geopolitical risks. The proposed methodology will be suitable for ongoing monitoring. When applying this method, the company does not incur additional costs for the construction company. A simplified analysis based on publicly available data can be performed by an economist in a standard software package: Excel, can also become part of the analytical software packages used in the enterprise. Compared with similar well-known methods for assessing competitiveness, the proposed analysis evaluates competitiveness in the aspect of geopolitical transformations. This allows construction companies to determine the protection level against environmental factors.

Keywords: competitiveness assessment, construction enterprises, geopolitical transformations, cluster analysis.

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INTEGRATED TOOL DEVELOPMENT FOR MANAGING A MARKETING ACTIVITY OF A TRADING ENTERPRISE IN A COMPETITIVE MARKET

page 10–20

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The object of research is a comprehensive approach to the formation of the marketing policy of a trading company to improve the effectiveness of marketing activities in the competitive market. The presented approach consists of three main stages, namely: assessment and analysis of the prospects of marketing activities of the enterprise, assessment and analysis of the internal and external environment, management of the marketing policy of the enterprise.

To assess the attractiveness level of the field of activity, the Cobb-Douglas production function is used, on the basis of which a number of characteristics characterizing the economic attractiveness of economic sectors are determined. The highest performance indicators are in the area of trade, construction and financial activities.

As part of the study of environmental factors, regional segmentation models are constructed using the cluster analysis method, which allows identifying stable groups of objects with similar characteristics. Segmentation allows to get homogeneous groups of regions of Ukraine on the grounds of: development level, level of investment attractiveness, level of economic activity and the need to update household appliances. The result is a group of regions with high, medium and low levels of development. The methods of analysis of variance are applied to study the differences in the product market by region.

To study the internal environment, models of product sales dynamics are implemented and forecasts are made that allow to develop

a set of measures to improve the company's sales policy. To assess and predict the level of sales of goods, time-series decomposition models with the identification of components are used: trend-cyclic, seasonal, and random. The used inventory management model for improving sales policy management is adapted to the trading company based on the use of intermediate planning results, namely: demand rates, costs for ordering and storage, lead time.

A hierarchy analysis method based on an expert survey on the formation of promotion policy directions is implemented. The obtained priority measures for the use of marketing budget funds, which should be aimed primarily at the development and implementation of effective marketing measures for: promotion and promotion of sales, advertising, personal sales and public relations. The results can be implemented in the activities of trading enterprises to formulate and justify a marketing development policy.

Keywords: marketing activity, marketing policy, internal and external environment, market segment, management strategy.

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REPORTS ON RESEARCH PROJECTS

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DESIGN OF NEW FOOD FOR DIET PURPOSES ACCORDING TO CONSUMER PREFERENCES

page 21–25

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The article studies the design of a new meat product of dietary use in accordance with consumer preferences. The object of research is potential consumers of meat products. 210 people who participated in the experiment were practically healthy, 390 people had certain diseases. Namely: 109 people with iodine deficiency states, 154 people with celiac disease, 127 people with type 2 diabetes. The subject of research is their consumer preferences. Analyzing the survey data, it is found that consumers' conscious requirements for a new meat product of dietary use are dietary properties and usual organoleptic characteristics, long shelf life and low price of the finished product. Not aware of the requirements is a natural composition that is balanced depending on dietary purpose, the presence of safe functional ingredients and the absence of negative effects on the body. It has been established that when producing meat products for patients with celiac disease, wheat flour should be completely excluded from the formulations of meat products, replacing it with gluten-free flours, soybean chickpeas, which will enrich meat products with essential amino acids. Such a replacement is also appropriate for people with diabetes, where the amount of easily digestible carbohydrates

should be limited. As for the consumer preferences of people with iodine deficiency, the representatives of this segment want to consume meat products that are carriers of organic iodine and selenium with reduced salt content. The application of the QFD methodology will minimize the discrepancy between the meat product manufacturer and the consumer's requirements for the product after its launch. And will ensure high value and at the same time relatively low cost of the product by minimizing the cost of correcting the discrepancy.

Keywords: consumer properties, meat product, dietary product, quality house, QFD methodology.

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SOCIOMETRIC ASSESSMENT OF BRANDS OF MINERAL WATER

page 26–29

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Today, in conditions of intense competition and dynamic development of the market, brands play a major role in the sustainable development of the enterprise. It is the brands that provide security, confidence of competitors, strengthen the position of the product in the minds of consumers, facilitate the promotion of new products and conquer new niches in the market. It also strengthens the trust of partners providing the enterprise with access to human, financial, informational and other resources, and reduces the sensitivity of the consumer audience to the price factor. Of particular importance is the issue of brands in the mineral water market, where one of the most problematic places, in conditions of intense competition, is the presentation of comprehensive research, the identification of basic food needs and consumption characteristics of this particular product. Therefore, the object of this research is the process of sociometric assessment of mineral water brands.

A sociometric analysis of brands along with quantitative indicators is carried out; they are the most important qualitative criteria for assessing brands. A methodological approach to the sociometric assessment of brands in the mineral water market is proposed, the sociometric status and strength of brands are determined based on the assessment of the significance of its individual attributes. The presented brand rating allows to highlight the factors affecting the choice of a mineral water brand for a consumer audience. Sociometric surveys were conducted and a sociometric matrix and brand card were formed. The results of the analysis of sociometric assessment allow to identify the main trends in the consumption of mineral water, highlight the prospects for developing a brand leader strategy in the market through the introduction of innovative technologies, motivation and staff development. As well as developing programs for effective brand management and highlighting the main advantages of the brand.

Prospects for further research are monitoring and auditing the Ukrainian mineral water market, analysis of brand strategies and methods to increase the competitiveness of the brand as a whole.

Keywords: marketing research, mineral water market, sociometric analysis, brand rank, consumer factors.

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DEVELOPMENT OF A COMBINED METHOD FOR PREDICTING DISCRETE TIME SERIES WITH NON-STABILITY FOR FORECASTING MILITARY GOODS DEMAND

page 30–32

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The object of research is a model of the production system of military goods with non-stationary processes. In the study of the time series of the characteristics of the production system, various competing models, as a rule, are obtained under production conditions with stochastic data on the output of products due to bottleneck problems. So, the choice of the best model that describes the production system becomes difficult and critical, because some models that most closely correspond to the observed data may not foresee future values in accordance with the complexity of the model. This study seeks to demonstrate the procedure for selecting a model in a random data system using adjusted weights. This paper presents a method for combining two sets of forecasts. The obtained measurements serve as input with an autocorrelation function and a partial autocorrelation function to obtain the order of predictive models. The model parameters are evaluated and used for forecasting and compared with the original and converted data to obtain the sum of squared errors in (SSE). Models are evaluated for adequacy and subsequently tested against Akaike and Schwarz criteria. Two separate sets of forecasts of time series data are combined to form a combined set of forecasts. It should be noted that when each set of forecasts contains some independent information, combined forecasts can provide an improvement. The proposed method for combining forecasts allows to change weights, can lead to better forecasts. The main conclusion is that a set of forecasts can lead to a lower standard error than any of the initial forecasts. Past errors of each of the initial forecasts are used to determine the weight for joining two original forecasts in the formation of combined forecasts. However, the effectiveness of the forecast may change over time.

Keywords: forecasting model, discrete time series, random output data, combined forecasting method.

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DEVELOPMENT OF COMPARATIVE ASSESSMENT METHOD OF DIGITAL ECONOMY BASED ON THE INTEGRAL INDEX

page 33–39

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The object of research is the process of statistical and economic measurement of the digital economy. One of the most problematic places of research is the theoretical justification of the approach to determining the national index of the development of the digital economy in the conditions of the initial stage of the digital transformation of socio-economic relations in Ukraine.

In the research process, a system analysis method was used to identify problems and directions for improving digital statistics in Ukraine, studying the interpretation of the concept of the digital economy, including from the perspective of basic indicators. The method of generalization is used to systematize the digital industry of Ukraine according to the types of economic activity of the national classifier, as well as international indices of the digital economy in the areas of its assessment. Using the heuristic method, a methodology for the comparative assessment of the digital economy based on the integral index has been developed. The determination of the directions of practical application and further development of the latter is obtained by the logical method of research. Based on the results of the study, a national index of the development of the digital economy is proposed, synthesizing the following private indices:

– development of digital infrastructure;
– digitalization of the socio-economic system;
– digital transformation of the socio-economic system.

The quantitative and qualitative indicators of assessing the digital economy from the position of the basic foundations of its development are systematized. This approach to determining the integral index is due to the low level of development of digital infrastructure and the digital sector of the Ukrainian economy at the present stage, the need to create basic conditions for digital transformation through the use of new information and communication technologies.

The developed methodology acts as a tool for rationalizing digital policy decisions in implementing the national digital development strategy in the context of Ukraine's transition to a full-fledged digital economy. Its advantage is the possibility of a comprehensive (technological, economic, social) assessment of the degree of development of the digital economy in a country at the initial stage of digital transformation. The proposed assessment tools serve as the basis for its further development from the perspective of the formation of a full range of factors (conditions) of the digital economy (digital, non-digital) and digital effects.

Keywords: digital economy, digital sector of the economy, digital transformation, integrated assessment, digital development strategy.

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ANALISIS OF UKRAINE'S INDUSTRIAL ENTERPRISES: DIRECTION OF DEVELOPMENT

page 40–43

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The object of research is the industrial enterprises of Ukraine and the directions of their modern transformation in the conditions of post-industrial development of the economy.

The paper presents the results of a study of the «industrial enterprise» concept. The differences in the perception of an industrial enterprise by various classification systems are disclosed. It is shown how a change in the term «industrial products» to the concept of «intermediate products» forms the modern environment for the production activity of enterprises.

The study used methods of analysis, comparison and generalization. The place of Ukrainian industry in world ratings is shown. Since world industry is influenced by two different polar factors – the development of the economy of a particular state and the development of the territory – the main task of industrial capital is determination of the original and promising directions of development. The author investigates the state and determined the prospects for the development of individual groups of industrial enterprises in Ukraine. The theoretical significance of the work is revealed in the systematization of statistical data that illuminate the threats and opportunities for changes in the external environment of an industrial enterprise. The dynamics of the modern redistribution of the significance of individual groups of enterprises in the mining and processing industries is shown. It is noted that the service industry is becoming the main consumer of intermediate products. Therefore, the requirements for industrial enterprises are changing, there is a need for a transition from technological updating of production to the formation of cyber-physical systems of the digital economy.

The scientific novelty of the work is determination of the development prospects of the mining and processing industries for related types of economic activity.

The practical value of the work is in an attempt to formulate concrete ways of differentiation and diversification of industrial enterprises. Taking into account strategic changes in the external environment of industrial enterprises, related groups and classes of types of economic activity are identified, the products of which will be potential sales markets, and hence the prospects for the development of an industrial enterprise.

Keywords: industrial complex, industrial enterprises, type of economic activity, promising areas of development, significance matrix.

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