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THE EFFECT OF THE CONSUMER DECISION-MAKING PROCESS ON THE PERCEIVED VALUE TOWARD SLOW FASHION

Puiu Ionela-Andreea[1]

Abstract. Slow fashion designates a new paradigm in the clothing industry that promotes the importance of fashion goods realized with natural and durable products, empowering consumers to use the purchased clothes for a longer time, decreasing, in this case, the environmental and societal impact of fashion pieces. Even if it designates the opposite of fast fashion production, the slow fashion notoriety is not remarkably high among consumers. This study proposed to examine the effect of the consumers' decision-making process on the noticed value toward slow fashion. In this regard, we considered multiple decision-making constructs and tested their impact on consumers' perceived value toward slow fashion. Also, we examined if there are discrepancies in the perceived value toward slow fashion based on gender. A survey was designed and administrated in Romania to a sample of 330 consumers aged between 18-25. We applied to the collected data exploratory analysis to identify the distribution of manifest variables into factors, followed by confirmatory factor analysis to test the performance of the obtained factors. Finally, we tested the proposed hypotheses using the structural equation model procedure. Were identified seven dimensions that compose the decision-making process of the consumers, namely, recreational shopping, perfectionism, brand knowledge, over choice confusion, fashion awareness, impulsive buying, and brand loyalty. Also, were found three dimensions that constitute the consumers' perceived value toward slow fashion, namely, emotional, social, and financial dimensions. The results showed that over choice confusion exhibits a positive effect on the emotional and financial value; fashion awareness manifests a positive effect on the social value, while brand loyalty manifests a positive impact on the financial value. In the case of gender impact on the emotional value, it was identified that, if a respondent is a female, the influence is positive and statistically significant.

Key words: Fashion Industry, Consumer Behavior, Slow Fashion, Structural Equations, Innovation Resistance.

JEL Classification: C38, D12, L67, P36

1. Introduction

There is remarked an increase in the number of consumers that became more conscious of the environmental and scarcity difficulties that may affect their lifestyles and inevitably their consumption behavior. An industry that is facing this problem is the fashion industry that paid meaningful attention to sustainability and ethical issues, aggressively promoting this awareness also to fashion producers.

In this context, developed slow fashion as a widespread reaction to the fast fashion movement. Slow fashion appoints the process of creating and consuming fashion items ethically and consciously by introducing an alternative method of technological production to reduce as much as possible the waste of available resources and to find alternative fabrics that present regenerable properties. Essentially, slow fashion connects social and environmental awareness with the responsibility for the future and the satisfaction of getting and wearing attractive, well-realized, and long-lasting fashion items, contrary to the immediate satisfaction produced by fast fashion consumption.

In the research process that we have undertaken, we proposed to realize an inventory of the consumers' decision-making influence on the perceived value toward slow fashion. In this regard, we applied exploratory factor analysis, finding seven components that encompass the decision-making process and three factors that compose the perceived value toward slow fashion. Secondly, it was applied a confirmatory factor analysis followed by hypotheses testing using the structural equation model procedure.

In the first section of the study, it was realized a summary of the existing studies in the domain, followed by the research method, results, and conclusions. In the last section were presented practical implications and limitations of the present research.

Corresponding author:
[1] The Bucharest University of Economic Studies,
Economics I Doctoral School, Bucharest, Romania.
E-mail: andreeaipuiu@gmail.com
ORCID: https://orcid.org/0000-0003-3461-1144

2. Theoretical foundation

People confront every day, consciously or unconsciously, with decisions. When it comes to the process of purchasing goods, consumer choices are influenced by mental and cognitive biases regarding their shopping experience and purchase decision-making techniques (Sproles, 1985; Stankevich, 2017). In this respect, the existing literature (Sproles and Kendall, 1986) identified eight dimensions that could characterize the consumer's decision-making process, namely recreational shopping consciousness, perfectionism, brand consciousness, confusion by over choice, fashion consciousness, price consciousness, impulsiveness, and brand loyalty. In the following, we would expose the implications of each dimension.

The first dimension, recreational shopping experience, refers to the satisfaction that arises from the buying session, consumers looking for new emotional experiences, and adventure during the shopping activity. The second dimension, perfectionism, refers to the people's tendency toward maximization and realization of the best choices, considering the available resources. Perfectionist consumers search for high-quality products that provide them with a greater added value.

The third dimension, brand consciousness, describes that purchase decision that is influenced by the rename of a brand, consumers getting only the most well-known brands that have the higher prices, this last aspect being considered a sign of quality. Brand consciousness is also managed by the consumer's desire to adhere to a social class or to confirm his social status (Goldsmith et al., 2010).

Another aspect that could affect the decision-making process is the existence of multiple available options. In this case, the consumer is oversaturated with various options from whom he can choose (Claudy, 2011; Puiu, 2019). The decision process becomes embarrassed and produces interference in the consumer subconscious.

The other two aspects that influence the consumer decision-making process are fashion consciousness and price consciousness. Fashion consciousness refers to people's inclination to favor the newest styles and the latest appeared fashion trends. Price awareness limits the bias toward impulsive and irrational shopping because consumers are sensitive to the financial part.

Impulsiveness appoints people's inclination to realize purchase decisions irrationally. Therefore, buyers assume those choices without examining all factors that affect the purchase process and implicitly its unfavorable effects. The last dimension, brand loyalty, describes people's tendency toward attempting consistency and the default choice. So, consumers prefer to buy previously recognized and tested products or brands rather than trying new ones, even if the last category of products will supply them with a higher satisfaction or economic utility.

We expect that the previously presented dimensions will reveal a significant impact on the consumer's perceived value toward slow fashion, even there will be a positive or a negative influence. This perceived value was identified as being the overall efficacy of a product based on consumer investment and its expected returned earnings. Consumers perceived value toward a particular output includes four dimensions: the emotional, social, price, and quality values.

Emotional value refers to the affective sensations that consumers manifest toward products. It is known that consumers exhibit attachment to the products that they own (Tversky and Kahneman, 1991). The social value shows people's wish to be part of a community. The social value includes the products that consumers buy and use to be accepted by their social group and realize a good impression on their peers.

Price value appoints the cost-benefit investigation to verify if a product creates the proper value for its implicit cost. The last dimension, quality value, refers to the overall perceived quality of a product and whether this quality produces satisfaction to the consumer or not.

Considering that we are examining the influence of the decision-making dimensions on the perceived value toward fashion, we expect to register differences among males and females because their attitude toward fashion is different. Considering previously exposed theoretical aspects, we hypothesized the following statements that will be tested.

Hypotheses

H_1: Decision-making components manifest a statistically significant influence (eighter negative or positive) on the consumers' perceived values toward fashion.

H_2: Gender manifests a positive influence on the perceived values of slow fashion.

3. Research methodology

3.1. The instrument, sample, data collection and, method of analysis

To collect data, it was applied a questionnaire that connects scales validated in previous research. To measure the consumer decision-making styles, it was adjusted the scale validated in Sproles and Kendall's study (1986). It was evaluated the consumers' perceived value toward slow fashion applying the perceived value scale, adapted from Sweeney and Soutar (2001). The items were ranked using a seven-point Likert scale, where one belongs to strong disagreement and seven to strong agreement. The original survey was translated into Romanian.

There was gathered a total of 330 responses from Romanian consumers; aged between 18 and 25 years (the mean age of the participants was 23.38). Regarding the gender distribution in the sample,

Table 1
Sample characteristics

ITEM	CLASSIFICATION	N = 330	
		No.	%
Gender	Women	262	79.00%
	Men	68	21.00%
Residence	Urban	225	68.3%
	Rural	105	31.7%
Income	Lower than $225	149	44.9%
	Between $225-$450	58	17.5%
	$450-$675	47	14.2%
	$675-$900	30	9.00%
	$900-$1125	10	3.00%
	$1125-$1350	16	4.80%
	Greater than $1350	20	6.60%
Frequency Clothes Purchase	Weekly	8	2.60%
	At two weeks	19	5.50%
	Monthly	90	27.1%
	Every season	69	20.8%
	Where it is needed	144	43.4%

Source: Author's calculation, 2020

we encountered 262 women (79.00%) and 68 men (21.00%), while regarding the residence: 225 of the respondents (68.3%) were from the urban areas, while only 105 of them (31.7%) were from rural areas. Regarding their county of residence, most of them were from Bucharest (18.81%), followed by Iași (13.86 %), Bacău (6.6%), Neamț (5.28%), Brașov (5.00%) and Mureș (5.00%).

Regarding the monthly net revenue, 44.9% recorded a net monthly income lower than $225, while only 6.6% reported an income higher than $1350. Concerning the frequency of clothes purchase, 43.40% stated that they purchase clothes when there is needed, while 27.10 % used to buy clothes weekly. We exposed descriptive statistics of the sample in Table 1.

Before testing the hypotheses, it was conducted exploratory factor analysis using the *minres* extraction procedure and *oblimin* rotation, followed by reliability tests. There were eliminated from the analysis factor loadings lower than 0.40. Further, it was employed the confirmatory factor analysis to examine the performance of the obtained constructs in the exploratory analysis, followed by fit indices calculations. To test the stated hypotheses, it was employed a structural equation procedure. All statistical procedures were tested using the R Software (R Core Team, 2020).

4. Findings

4.1. Preliminary analysis

The first part of the research method started with a graphical representation of the presumed correlations among the investigated dimensions. It was observed that most of the variables correlate positively, not being registered scores lower than 0.3 to indicate the lack of association among investigated variables.

In the next step, it was checked the appropriateness of the sample size to run the exploratory factor analysis employing the Kaiser Mayer Olkin Statistics (KMOS) for both scales included in the questionnaire. The KMOS registered meritorious scores of 0.84 (decision-making style), respectively, 0.88 (perceived value). The parallel analysis suggested that seven factors appear from the decision-making style dimension and three factors from the perceived value dimension.

In the case of the decision-making dimension, the primary factor explained 10.40% of the variance, while the remaining four factors accounted for 9.20%, 8.40%, 8.00%, 7.20%, 5.90%, 5.00%. The Cronbach Alpha registered scores among 0.64 and 0.89 (Table 2). Regarding the fit indices, the Tucker-Lewis Index of factoring reliability encounters a value of 0.929. The root means square of the residuals (SRMR) registers a score of 0.03, while the root mean square of error approximation (RMSEA) a value of 0.049.

Regarding the perceived value dimension, the primary factor explained 24.30% of the variance, while the other two factors explain 23.20%, respectively 19.10%. For this scale, we registered Cronbach Alpha scores among 0.86 and 0.92. For this scale, the Tucker Lewis Index registers a value of 0.936. The SRMR registers a value of 0.02, while RMSEA registers a score of 0.088.

After the exploratory analysis, we employed the confirmatory factor analysis, using the maximum likelihood estimator, to verify the performance of the already obtained factors. To diagnose the model, we considered the following indices: Goodness of Fit and Adjusted Goodness of Fit Indices (GFI ≥ 0.95

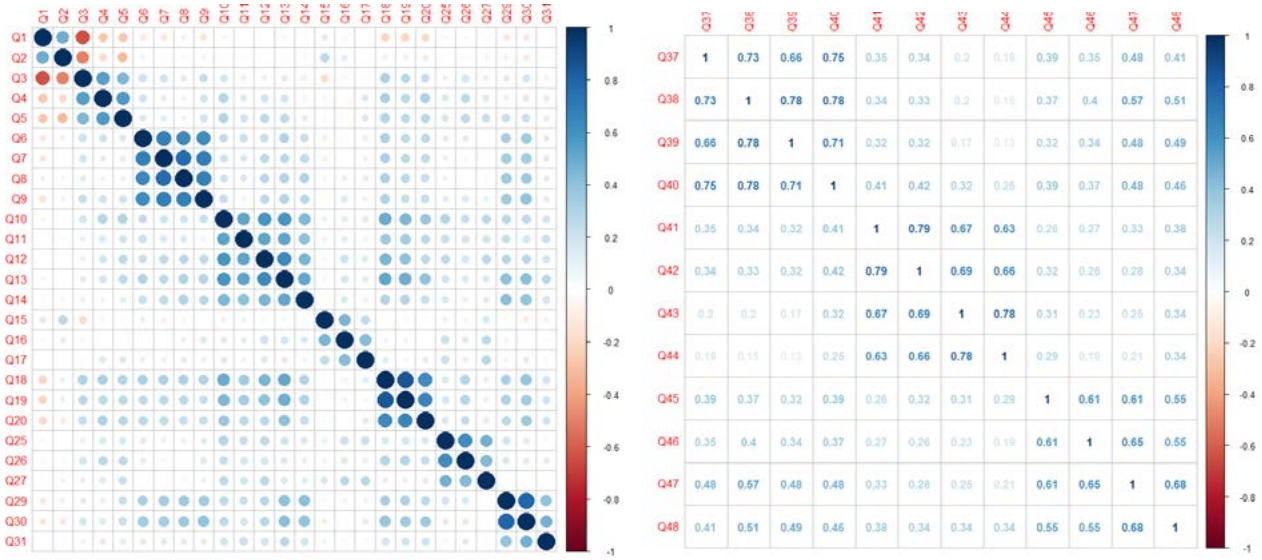


Figure 1. Items Correlation

Source: Author's calculation, 2020

Table 2
Exploratory factor analysis model

	Items	Loadings	Cronbach Alpha
F1 – Recreational Shopping	Shopping is not a pleasant activity.	0.664	0.78
	Shopping in different stores is a waste of time.	0.627	
	Shopping is very enjoyable for me.	0.864	
	I enjoy shopping just for fun.	0.504	
	It is fun to buy something new and exciting.	0.523	
F2 – Perfectionism	I make a special effort to choose the best quality products.	0.728	0.89
	In general, I usually try to buy the best overall quality.	0.896	
	Getting good quality is important to me.	0.859	
	I have remarkably high standards and expectations for the products I buy.	0.752	
F3- Brand Knowledge	The most advertised brands are good choices.	0.678	0.84
	The higher the price of the product, the better the quality.	0.706	
	I prefer buying best-selling brands.	0.751	
	I usually buy well-known brands.	0.670	
	Good quality department stores and specialty stores offer the best.	0.552	
F4 – Over choice Confusion	I am confused by all the information on different products.	0.548	0.64
	The more I learn about products, the harder it seems to choose the best.	0.816	
	There are so many brands to choose from that I often feel confused.	0.510	
F5 – Fashion Awareness	I usually have at least one outfit of the newest style.	0.846	0.88
	I keep my wardrobe up to date with the changing fashions.	0.914	
	Fashionable, attractive styling is important to me.	0.634	
F6 – Impulsive Buying	I often make purchases I later wish I had not.	0.734	0.75
	I frequently purchase on impulse.	0.807	
	I should spend more time deciding on the products I buy.	0.498	
F7 – Brand Loyalty	When I find a brand I like, I buy it regularly.	0.792	0.79
	I have favorite brands I buy every time.	0.960	
	I go to the same store each time I shop.	0.463	

Source: Author's calculation, 2020; Scale items were adapted from Sproles and Kendall, 1986

Table 3

Results exploratory factor analysis on the perceived value dimension

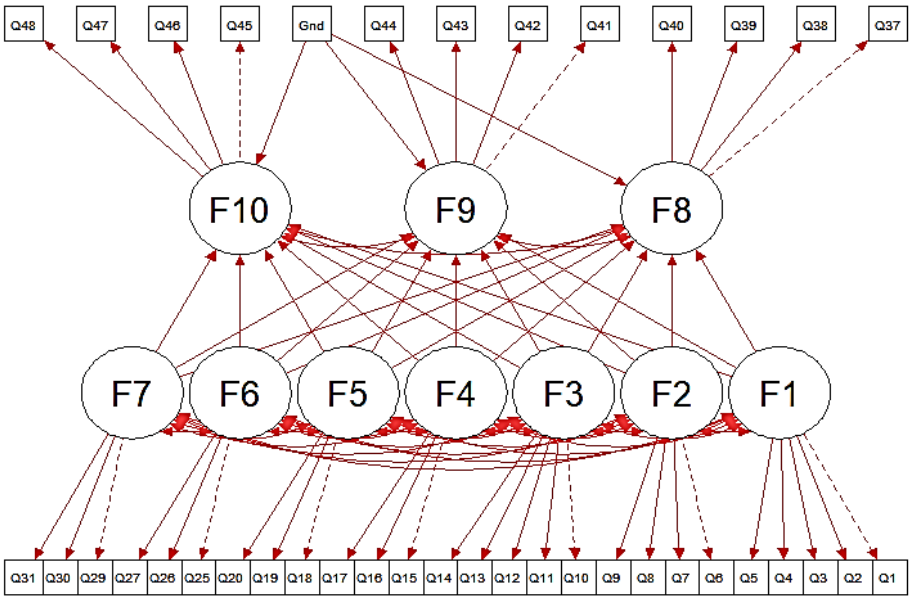
	Items	Loadings	Cronbach Alpha
F1 - Emotional Value	Slow fashion clothing has an acceptable standard of quality.	0.783	0.92
	Slow fashion clothing is one that I would feel relaxed about using.	0.887	
	Slow fashion clothing would make me want to use it.	0.834	
	Slow fashion clothing is one that I would enjoy.	0.836	
F2 – Social Value	Slow fashion clothing would improve the way I am perceived.	0.772	0.90
	Slow fashion clothing would make a good impression on other people.	0.819	
	Slow fashion clothing would give its owner social approval.	0.866	
	Slow fashion clothing would help me to feel acceptable.	0.851	
F3 – Financial Value	Slow fashion clothing is reasonably priced.	0.751	0.86
	Slow fashion clothing would be economical.	0.814	
	Slow fashion clothing is a good product for the price.	0.800	
	Slow fashion clothing offers value for money.	0.634	

Source: Author's calculation, 2020. Scale items were adapted from Sweeney and Soutar, 2001

AGFI ≥ 0.90), Tucker-Lewis Index (TLI ≥ 0.95), Comparative Fit Index (CFI ≥ 0.90), root mean square error of approximation (RMSEA < 0.08) and standardized root mean square residual (SRMR < 0.08). The seven factors model concerning the decision-making process fit well on the data, registering good scores of the fit indices (GFI = 0.981, AGFI = 0.974, TLI = 0.914, CFI = 0.926, RMSEA = 0.056, SRMR = 0.062). The same good results were obtained in the case of the perceived value dimension, but the Tucker-Lewis Index registers a score slightly above the threshold; while the root mean square error of approximation registers a score above the threshold (GFI = 0.978, AGFI = 0.960, TLI = 0.926, CFI = 0.943, RMSEA = 0.096, SRMR = 0.049).

4.2. Hypotheses testing

To test the proposed hypotheses, it was applied a structural equation model, implemented using the *lavaan* package (Rosseel, 2012). The gathered results were graphically outlined in the following image (Figure 2).



Notes: F1 = Recreational shopping; F2 = Perfectionism; F3 = Brand knowledge; F4 = Over choice confusion; F5 = Fashion awareness; F6 = Impulsive buying; F7 = Brand Loyalty; F8 = Emotional value; F9 = Social value; F10 = Financial value;

Figure 2. Results of the Structural Equation Model Estimation

Source: authors' calculation, 2020

Table 4
Direct Effects – Hypotheses Testing

Direct Effects	Estimate	Standard Error	z-value	P-value
Emotional value ~ Recreational shopping	-0.002	0.057	-0.028	0.978
Emotional value ~ Perfectionism	0.102	0.057	1.788	0.074
Emotional value ~ Brand knowledge	-0.011	0.086	-0.131	0.896
Emotional value ~ Over choice confusion	0.291	0.090	3.249	0.001**
Emotional value ~ Fashion awareness	-0.010	0.049	-0.202	0.840
Emotional value ~ Impulsive buying	-0.064	0.051	-1.257	0.209
Emotional value ~ Brand loyalty	0.052	0.046	1.136	0.256
Emotional value ~ Gender	0.301	0.133	2.259	0.024*
Social value ~ Recreational shopping	0.002	0.065	0.024	0.981
Social value ~ Perfectionism	0.064	0.065	0.024	0.981
Social value ~ Brand knowledge	0.102	0.099	1.037	0.300
Social value ~ Over choice confusion	0.179	0.098	1.832	0.067
Social value ~ Fashion awareness	0.123	0.056	2.183	0.029*
Social value ~ Impulsive buying	0.085	0.058	1.463	0.143
Social value ~ Brand loyalty	0.048	0.053	0.916	0.360
Social value ~ Gender	-0.222	0.152	-1456	0.145
Financial value ~ Recreational shopping	0.005	0.049	0.094	0.925
Financial value ~ Perfectionism	0.061	0.049	1.233	0.217
Financial value ~ Brand knowledge	0.034	0.075	0.454	0.649
Financial value ~ Over choice confusion	0.158	0.075	2.104	0.035*
Financial value ~ Fashion awareness	0.013	0.043	0.306	0.760
Financial value ~ Impulsive buying	-0.037	0.044	-0.829	0.407
Financial value ~Brand loyalty	0.086	0.040	2.126	0.034*
Financial value ~ Gender	-0.037	0.115	-0.317	0.751
FIT INDICES				
CFI = 0.915; **TLI** = 0.904; **RMSEA** = 0.052; **SRMR** = 0.061;				

Source: authors' calculation, 2020

The results of the structural equation models (Table 4), that test potential relationships between decision-making dimensions and their perceived value toward slow fashion, identified several significant influences. In this respect, it was identified that over choice confusion exhibits a positive effect on the emotional value (β = 0.291, p-value = 0.001) and on the financial value (β = 0.158, p-value = 0.035); fashion awareness manifests a positive impact on the social value (β = 0.123, p-value = 0.029), while brand loyalty manifests a positive influence on the financial value (β = 0.086, p-value = 0.034).

Regarding the gender influence on the perceived value, gender variable was transformed in a binary variable that takes the value of 0 if a respondent is a male and a value of 1 if a respondent is a female. In the case of the gender influence on the emotional value, we identified that if a respondent is a female, the influence on the emotional dimension is positively increasing, the influence being also statistically significant (β = 0.301, p-value = 0.024). On the other hand, we observed that if a respondent is a female the overall influence on the social (β = -0.222, p-value = 0.145) and financial value (β = -0.037, p-value = 0.751) is negative and not statistically significant.

Overall, the model that we have tested proved to registers good scores of the fit indices, namely the Comparative Fit Index (CFI = 0.915), root mean squared error of approximation (RMSEA = 0.052), and standardized root mean square residual (SRMR = 0.061) registered desirable values. Regarding the Tucker Lewis Index, the obtained value is slightly below the 0.95 threshold.

5. General discussion and implications

The present research aimed to contribute to the slow fashion literature by supplying empirical evidence about the consumer's decision-making styles in understanding their perceived value toward slow fashion. The existing literature revealed that the decision-making style scale includes eight factors, namely, recreational shopping consciousness, perfectionism, brand consciousness, confusion by over choice, fashion consciousness, price consciousness, impulsiveness, and brand loyalty. The perceived-value scale is composed of four factors, namely the emotional, social, price, and quality values.

In the exploratory analysis that we conducted, we have found that in the case of the decision-

making styles, the price consciousness loadings were exceptionally low, and the reliability score was poor performing. Therefore, we decided to drop it from the analysis. The same happened to the quality value from the perceived-value scale.

Regarding the hypotheses testing, we noticed that over choice confusion presents a positive impact on the emotional and financial values. While fashion consciousness manifests a positive impact on social value and brand loyalty shows a positive influence on financial value. The positive impact of fashion awareness on the price value was expected considering the results of existing research (Sung and Woo, 2019).

Regarding the gender influence on the emotional value, it was remarked that if a respondent is a female, the impact is positively improving by 0.301, being also statistically significant.

We consider that those findings are in the interest of fashion retailers to develop proper marketing strategies for consumers to enhance their interest in slow fashion. Also, it is essential to make consumers aware of the positive features of the slow fashion, the time and financial benefits in the long term, the high quality offered while supplying the environmental protection function.

6. Limitations and future research

Even if the present research contributes to existing literature about the slow fashion movement and our empirical evidence could be in the interest of fashion retailers to develop appropriate strategies to contribute to a positive attitude toward slow fashion, some limitations should be kept in mind when generalizing the gathered results. The results have limited generalizability considering the sampling method that we have used to collect the data, namely the snowballing sample procedure. Moreover, our sample is unbalanced because we have more women (79.00%) than men (21.00%) respondents and more people from urban areas (68.3%) than from rural areas (31.7%). From the fact that most of the respondents reported a net monthly income lower than $225 (44.9%), we question that they are willing to invest lots of money in clothing acquisition. Considering those aspects, we believe that there is a need to extend the present research to a more homogeneous and unbalanced sample.

For the future, we propose to investigate the consumer's perceived value influence on their attitude and their purchase intention about the slow fashion phenomena.

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THE RISK PLANNING METHODOLOGICAL PRINCIPLES FOR HOUSING INVESTMENT

Olena Balanska[1], Olexandr Yemelyanov[2]

Abstract. In many countries wordwide there is an urgent need to increase the housing level. However, a significant increase in this level is hindered by a number of factors. Among these factors, the significant risk of housing construction investing is essential. Reducing the riskiness of housing construction investing requires, among other things, the use of scientifically grounded risk planning methods in such investment. With taking this into account, the *purpose* of this work is to develop methodological principles for the housing investing risk planning. *The study subjects* were the patterns of forming the housing construction investing risks. The *methodology* of this study involved the use of systems analysis, economic and mathematical modeling, tools of decision theory, and technical and economic calculations. Among *the results* of the study, the formed input information array needed for planning the housing investing risks should be noted. This array includes the following main blocks: information on the available regulatory and legal support for housing construction; information on potential developers, intermediaries, and other entities investing in housing construction (particularly on the occurrence of risky events' frequency and scale in their activities); information on potential investment objects (such as their preliminary estimated costs, consumer characteristics, construction terms); information on the concluding agreements' conditions and procedure between the housing construction investment subjects. The indicator system for retrospective assessment in housing construction investing risk is proposed. In particular, the following indicators groups are included in this system: actual frequency indicators of risky events' occurrence in the investment entities' activity in the previous period(s); specific indicators of the risky events' occurrence scale in the investment entities' activities in the previous period(s); relative indicators of the risky events' occurrence scale in the investment entities' activities in the previous period(s). Also, this indicators system was supplemented by a number of generalizing indicators. The sequence of the risk planning process in housing construction investing for all the main participants of the process is proposed. For the investors particularly, this sequence contains the following sequential actions: a set of situations in which the construction object may appear is formed; the probability for each of these situations is estimated; the expected value of the economic benefit from the housing purchase in each situation is set; the mathematical expectation calculation of the value of economic benefits from the housing purchasing is made; the coefficient of variation is calculated according to the average linear deviation of economic benefits from the housing purchasing; the estimated market value of a residential real estate object is calculated taking into account the risk factor; the profitability index of the particular dwelling purchase operation is calculated. *The practical implication* of the developed methodological principles of the risk planning in housing construction investing in the practice of the construction subjects will increase the approved management decisions validity.

Key words: investment project, investor, developer, evaluation, risk, indicator.

JEL Classification: D81, G31, L74

1. Introduction

One of the leading indicators of living standards is housing availability. Achieving a high level of this indicator requires adequate volumes of housing construction. However, certain factors hinder its development. In particular, these factors include the housing construction investing risk.

In general, housing purchasing should be considered a specific investment project. In turn, modern management science and practice offer

Corresponding author:
[1] Lviv Polytechnic National University, Ukraine.
E-mail: olena.i.balanska@lpnu.ua
ORCID: https://orcid.org/0000-0003-4849-0080
[2] Lviv Polytechnic National University, Ukraine.
E-mail: oleksandr.y.yemelianov@lpnu.ua
ORCID: https://orcid.org/0000-0002-1743-1646

effective tools for project analysis and management (Flyvbjerg, 2006; Serra et al., 2014). The use of such tools makes it possible to increase the success of investment projects (Chan et al., 2004; Shenhar et al., 2001). This is achieved, mainly, by concidering all the main factors of such success and formalizing the projects' characteristics evaluating process (Cho et al., 2005).

One of the most critical characteristics of projects is their riskiness, which is the threat of partial or total failure of obtaining the expected results from the project's implementation. Taking into account the project's risk level requires the use of unique indicators and methods (Jaafari, 2001; Lesinskyi et al., 2018; Renn et al., 2013; Yemelyanov et al., 2018). The projects specific (Ho et al., 1992), particularly housing investment projects, should be taken into account. The riskiness of such investment is due to a number of factors, such as its significant duration, the complexity of the relationship between the participants in the investment process (Doloi, 2009).

The housing investment risk factor has been examined in a several of scientific papers (Abu Hassan et al., 2012; Akintoye et al., 1997; Baloi et al., 2003; Berk et al., 2012; Lian et al., 2017). However, methodological bases developing for such a risk planning are not definitively resolved and require further research. First of all, it is necessary to examine the peculiarities of such planning for all major participants in the housing construction investment process, particularly for investors, developers, intermediaries, and others.

2. The essence and information support of the risks planning process in housing construction investing

Under the investing risks planning in housing construction, it is advisable to understand the investment process subjects' actions to establish a reasonable level of their activities' riskiness in this process. It is necessary to establish planning criteria and determine the parameters, the optimal or normative values of which should be chosen by the planning entity, to carry out such planning. In particular, the norms include most of the construction process indicators (such as duration, the investment distribution during the construction period, the production resources spendings). Regarding the risk planning parameters for housing construction investment, which are a subject for optimization, they include those that should a priori be chosen from several alternatives. In particular, we can talk about the choice of a certain developer and intermediary, the best investment scheme, and others. Thus, the risk planning methodology of residential construction projects should include a combination of regulatory and optimization methods of such planning. This combination can also be reflected in the fact that the obtained investment process's optimal parameters may be specific standards for other entities that find themselves in similar conditions.

Planning the housing investing risks requires the prior forming of a wide array of input information. It is advisable to highlight the following main blocks of this information:

1) information on the available regulatory and legal support for housing construction;
2) information on potential developers, intermediaries, and other entities investing in housing construction (in particular, on the occurrence frequency and scale of risky events in their activities);
3) information on potential investment objects (such as their preliminary estimated cost, consumer characteristics, construction terms);
4) information on the agreements concluding conditions and procedure between the subjects of housing construction investment.

3. The retrospective assessment indicators of housing construction investing risk

While assessing the risk events frequency and scale in the housing investing entities activities, it is necessary to identify the following indicators groups for assessing the relevant investment risk characteristics:

1) indicators of the actual risk events frequency in the investment entities' activities in the previous period(s). It has to be chosen the basis on which such a frequency will be computed, to calculate these indicators. In particular, such a base for the developer may be the total square meters number of housing built, and for investors and intermediaries – the total square meters number of housing purchased by them in the previous period (s);
2) specific indicators of the risky events occurrence scale in the investment entities' activities in the previous period (s). The average amount of losses incurred by investment entities per unit of the selected base should be computed to calculate these indicators. In particular, specific indicators can be measured in monetary units per square meter of commissioned housing. In this case, the indicators can be computed both in the calculation of the entire database volume and in the calculation of the part of this database in respect of which risky events have occurred;
3) relative indicators of the risky events' occurrence in the investment entities' activities in the previous period (s). It is necessary to compare the number of losses incurred by investment entities with certain cost characteristics of the commissioned residential premises, particularly with their estimated cost, to calculate these indicators. As in the case of specific indicators, relative indicators can be calculated both

on the total estimated value basis of the commissioned dwellings and on the part of this value basis that corresponds to the base regarding which the risk events occurred.

It is advisable to identify three main risk events: unpredictable increase in construction costs; the consumer properties of residential premises deterioration compared to the predetermined level of these properties; delay in the residential premises commissioning. If we consider the losses from these risky events occurrences from the investors' point of view (if there are no unique mechanisms to compensate these losses, which were laid down in the text of the agreements between housing investing entities), the amount of these losses is determined as follows:

1) in case of an unforeseen increase in the construction cost, the losses amount is determined by the magnitude of such growth;

2) in case of the consumer properties of residential premises deterioration in comparison with the predetermined level of these properties, the losses amount is determined by the amount of housing market value reduction in comparison with the situation when such deterioration of housing consumer properties did not happen (or by the additional investor expenses to eliminate consequences);

3) in the event of a delay in the residential premises commissioning, the investor's loss amount may be estimated by the amount of rent that he would have received by giving the premises for rent for the period of this delay.

Thus, it is possible to offer the indicators system for retrospective risk assessment of housing construction investing. This system contains indicators that allow us to assess the extent and economic consequences of each of the significant risk events for investors, developers, and intermediaries (Figure 1).

In practice, in the case of a direct relationship between the investor and the developer, the central part of the investment risks (especially the risk of residential facility's untimely commissioning) is borne by the investor. Therefore, the most interesting cases are indicators of the risk events' actual frequency for developers and indicators of the events occurrence scale for investors who have dealt with specific developers.

It also seems appropriate to supplement the above indicators system for retrospective risk assessment in housing construction investing with generalizing indicators. These indicators can be the following:

– their actual occurrence frequency in the developer's activities, the standard for all-risk events. This frequency can be measured by the share of living space meters total number put into operation in the reporting period (s) for which at least one risk event occurred;

– the total specific scale of all risk events occurs in investors' activities who had a relationship with the certain developer. The amount of investor losses received from all possible risk events is first calculated to compute this indicator. Then this value is divided by the total number of living space meters put into operation in the reporting period(s), for which there was at least one risky event;

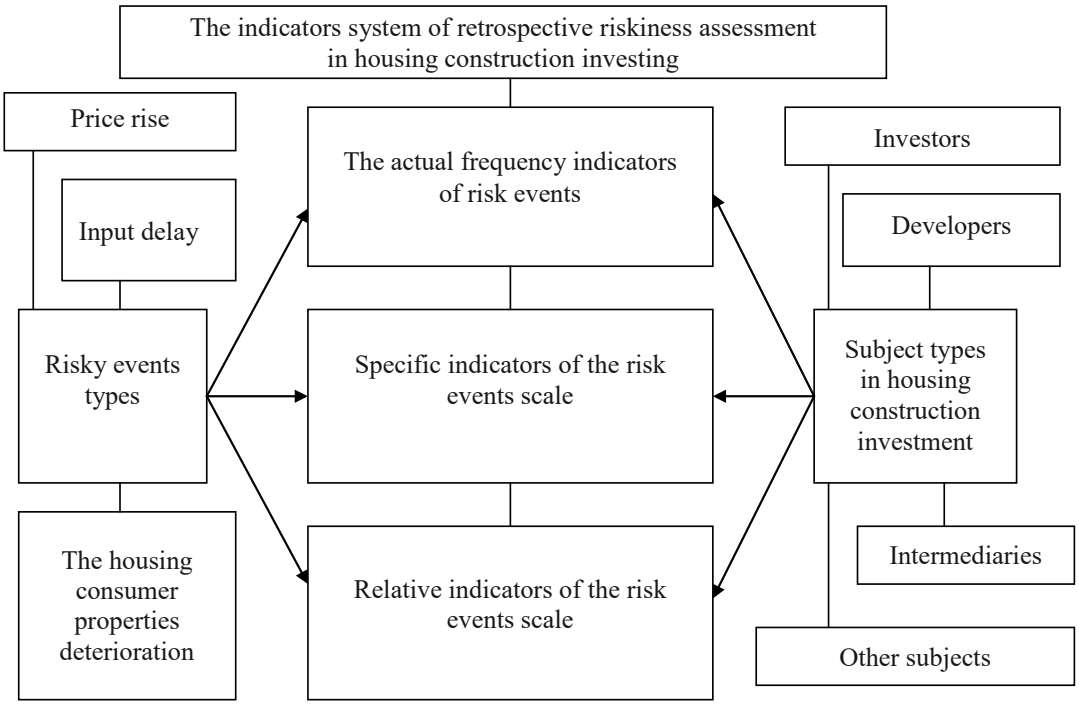

Figure 1. The indicators system of retrospective riskiness assessment in housing construction investing

Source: developed by the authors

– the overall relative scale of all risk events in that investors' activities who had a relationship with the developer. The investor losses number is first calculated to compute this indicator, as in the previous case. This value is then divided by the initial estimated cost of the living space total meters number put into operation in the reporting period(s) for which at least one risk event occurred.

These three summary indicators can be used to process the developers' attractiveness assessment for potential investors.

4. The sequence of the risks planning process in the housing investing

When considering the risk planning process in housing investing, it should be taken into account that this process will differ for all investment subjects. In particular, concerning the investors, when planning their risks, the function of probabilities distributing the expected economic benefit from the residential real estate purchase should be built first of all. In order to implement such a construction and other risk planning process, the following sequence of actions should be performed:

1) the situations set is formed in which the construction object may appear;

2) for each of these situations, its probability is estimated;

3) the expected economic benefit value from the housing purchase in each situation is set. This value can be calculated as the difference between the capitalization of net rent for the relevant premises and the expected investor's losses number in case of this situation:

$$E_i = \frac{P}{r} - L_i, \quad (1)$$

where:

E_i is the value of economic benefits from the housing purchase in the i-th situation, monetary units;

P is the annual value of net rent, monetary units;

r is the annual risk-free capitalization rate in the i-th situation, unit share;

L_i is the expected investor's losses value due to the occurrence of a risky event(s) in the i-th situation, monetary units;

4) the mathematical expectation calculation of the value of economic benefits from the housing purchase is performed:

$$M = \sum_{i=1}^{n} \left(E_i \cdot P_{ri} \right), \quad (2)$$

where:

M is the mathematical expectation of the value of economic benefits from the housing purchasing, monetary units;

n is the number of possible situations in which a residential property may find itself;

P_{ri} is the probability of the i-th situation occurrence;

5) the coefficient of variation calculation on the average linear deviation of economic benefits from the housing purchasing is performed:

$$c_v = \frac{\sum_{i=1}^{n} \left(|E_i - M| \cdot I_i \right)}{M}, \quad (3)$$

where:

c_v is the coefficient of variation on the average linear deviation of economic benefits from the housing purchasing, unit share;

6) the estimated market value of the residential real estate object is calculated by taking the risk factor into account:

$$V = M \cdot \left(1 - \frac{c_v}{c_{vm}} \right), \quad (4)$$

where:

V is the estimated market value of residential real estate with taking the risk factor into account, monetary units;

c_{vm} is the maximum possible value of the coefficient of variation on the average linear deviation (for positive values of the random variable is 2), unit share;

7) the profitability index for the certain housing purchasing transaction is calculated:

$$I = V / V_0, \quad (5)$$

where:

I is the profitability index for the particular housing purchasing transaction, times;

V_0 is the initial estimated cost of this building, monetary units.

If the profitability index calculated according to formula (5) exceeds one, then the housing purchasing should be considered appropriate. If the value of the profitability index is less than one, then buying such housing is impractical.

Regarding the risk value planning for the intermediary involved in the housing construction investing process, such planning is generally similar to the sequence of this process described above for the investor. However, additionally the following circumstances should be taken into account: 1) the intermediary's economic benefits are determined by the belonging to him share of housing buyer investment costs; 2) the intermediary's riskiness depends on what investment risks are transferred to him and whether they are insured; 3) while planning the intermediary's risks instead of the premises' initial estimated cost the assets amount involved in the intermediary's activities should be taken.

The proposed approach to the investor's (the housing buyer) risk planning under certain modifications can be extended to the case of the enterprise – the developer. However, the distributing function probability of a developer's profit from the housing construction and sale can be a function of many variables (for example, each situation may correspond

to a certain amount of developer's expenses not covered by the investor and a certain amount of unsold housing in square meters). Also, when planning the risks of the enterprise – the developer, the issue of determining the minimum allowable for such an enterprise initial estimated cost of each dwelling (or square meter of its area) is resolving. It is proposed to perform the following sequence of actions to solve this problem: 1) the probabilities distribution function of the developer's expected profit from the particular dwelling construction and sale at a certain estimated cost of this room is built; 2) the mathematical expectation and the coefficient of variation of this profit at a certain estimated housing cost is calculated; 3) the capitalized profit amount is determined using the risk-free capitalization rate; 4) the value of the developer's assets involved in the particular dwelling construction and sale is determined taking into account the premises area fraction in the total housing area that is put into operation by the developer and its construction and marketing processes duration; 5) the relationship between the housing construction estimated cost and the capitalized developer's profit amount, obtained as a result of housing construction and sale is built; 6) such housing estimated value, at which the developer's profit capitalized value from the housing construction and sale becomes equal to the developer's assets value calculated at the fourth stage, is determined. This cost will be the minimum allowable for the developer's estimated construction cost of a particular dwelling.

The authors analyzed the housing construction activities of a number of construction companies in the western region of Ukraine. The planned indicators of the housing construction investing risk for these developers on a sample of residential premises, the construction of which was expected to begin in 2019 were calculated (Table 1).

According to the data in Table 1, for most of the dwellings planned to be constructed, the profitability index (5) ranged from 1 to 1.4. Simultaneously, for 22.5% of living space, this index was less than one. Therefore, it is too risky to invest in such premises construction. This may be due to the high initial cost of such premises, as evidenced by the high average ratio of the initial planned cost to the developer's minimum allowable cost of housing. Thus, for most residential premises, which were examined for the investment feasibility, the investment risk is quite acceptable. Moreover for the housing, for which the investment risk is too high, it is necessary to reduce its price.

5. Conclusions

Risk planning in housing investment should be based on a preliminary assessment of the existing risk level. For this purpose, the indicators system of retrospective risk assessment in housing construction investment proposed in this paper can be used. This system contains indicators that allow you to assess the extent and economic consequences of each of the major risk events for investors, developers and intermediaries. It also allows you to establish the relationship between the risks inherent to their activities.

It is advisable for the investors, developers, and other participants of the housing construction investment process to use the developed in this work method of planning the housing construction investing risk level in their activities. This method involves constructing the probabilities distribution function of expected economic benefits from the residential real estate purchasing and construction. While using the developed method, it is possible to determine the reasonable share of risk premium in the price structure of the relevant construction products and calculate such numbers of the residential real estate value by considering the risk factors that are acceptable to investors and developers.

To quantify the riskiness level of housing construction investing, it is advisable to use the developed by the

Table 1

The planned indicators of the housing construction investing risk in the western region of Ukraine on a sample of residential premises, the construction of which was expected to begin in 2019

Indexes	The indexes value for residential premises, for which the profitability index (5) is				
	< 1	1 – 1.2	1.2 – 1.4	1.4 – 1.6	> 1.6.
1. The total living space fraction of the respective group in the total area of all such premises, %	22.5	40.6	24.9	8.1	3.9
2. The average profitability index for the housing purchase transaction, times	0.91	1.08	1.28	1.41	1.70
3. The average ratio of the forecast value of the coefficient of variation of economic benefits from the housing purchase to the maximum possible value of the coefficient of variation, unit share	0.49	0.32	0.24	0.17	0.13
4. The average ratio of the initial planned cost to the minimum allowable housing construction cost for the developer, times	1.45	1.26	1.09	0.97	0.93

authors the operation profitability index of the certain housing purchase. It is proposed to define this index as the ratio of a residential real estate object's estimated market value with taking into account the risk factor, to its initial estimated value. If the profitability index exceeds one, then the housing purchase should be considered appropriate. If the value of the profitability index is less than one, it is impractical to buy such housing. In the latter case, it is necessary to adjust the housing price in its reduction.

Further researches require, in particular, the development of a risk planning method in housing investing, depending on the chosen model of such investment.

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GLOBAL IMPACT AND REGIONAL DIMENSIONS OF SERVICES MARKET DEVELOPMENT IN UKRAINE

Kateryna Brenzovych[1], Myroslava Tsalan[2]

Abstract. In the context of decentralization processes in Ukraine, the development of perspective segments of the service sector that can be oriented at an external domestic or foreign consumer, should be in the focus of attention of local authorities and self-government bodies. For this reason, the purpose of the paper is to explore the theoretical foundations and practical realities of developing regional service markets in Ukraine, to study the influence of national and global factors on the tertiary sector development. *Methodology*. The study is conducted with the application of general scientific and specific methods of economic research. In particular, the methods of analysis and synthesis were used in assessing the structure of the services market according to statistical observations. The classification method is applied in the author's vision of division of services. The use of induction and extrapolation methods made it possible to distinguish the general features of services, based on certain occasions and market indicators and to extend them to a general structure. *Results* show the current state and development specifics of the services market of Ukraine in the regional dimension and the prospects of export specialization of its regions and trade in services in the context of Ukraine's participation in the WTO and association with the EU. Particular attention is paid to the study of the development of services market at the regional level, since the functioning of the services market has a clearly identified regional orientation, which causes significant differences in the development of entrepreneurship in the service sector at both the regions of the global economy, country and the local administrative and territorial entities. Some types of services are "tied" to the territory (for example, tourist locations), others have to be close to potential consumers (utility, personal, household services). The financial services sector is excluded from the subject of the study, which is explained by higher globalization of this type of services and much lower relation to regional development. *Practical implications.* The study of services sector development will be useful for local and national authorities while taking measures on local development programs. *Value/originality*. The study takes into account both local and global factors influencing the services market development, which is especially valuable in the context of Ukraine's aspirations of integration to the European Union.

Key words: service, services sector, development, foreign trade, export, import.

JEL Classification: F14, R12, R50

1. Introduction

It is widely recognized that in current time, services sector is one of the major drivers of economic growth in all countries, regardless of the level of development of their productive forces. However, while in developed countries the basis of economic development is now formed by the highly productive services in the field of IT and business services, in the countries under transition to the market economy and in underdeveloped countries the main contribution to the gross product is made by transport and communication services, tourism. At the same time, the analysis of the world experience shows that the services sector is an extremely dynamic part of the economy, which plays an important role in solving a range of problems, including improving the efficiency of munufacturing and overcoming unemployment, ehhancing the quality of life.

The residual approach in the study of service sector in Ukraine in the past as in other post-socialist countries, has led to an underestimation of its role in the structure of the national economy, as a result – to the slow and

Corresponding author:
[1] Uzhgorod National University, Ukraine.
E-mail: kateryna.brenzovych@uzhnu.edu.ua
ORCID: https://orcid.org/0000-0002-1935-3581
[2] Uzhgorod National University, Ukraine.
E-mail: myroslava.tsalan@uzhnu.edu.ua
ORCID: https://orcid.org/0000-0003-1878-1346

disproportionate development of this sector in the context of market economy restructuring. Thus, in Soviet times, services sector was considered 'non-productive' comparatively with manufacturing. At the same time, unavoidable reforming of the service sector in the context of restructuring property relations has led to the development of new forms of activity based on the principles of private property, competition and free pricing.

2. Results

Regional services markets, as well as commodity markets, are parts of a single integrated complex of the national market, also being a system of local relations regarding the production and consumption of services, which are indispensable components of the economic functioning of the region, and therefore require a comprehensive management approach. The services market, as compared to the goods market, is characterized by a higher level of localization, which arises primarily from the feature of the service – the continuity of the process of its production and sale. The territorial proximity of manufacturers and consumers of services enables more close reflection of the needs for services and taking into account the product requirements that are addressed by local consumers (there is a kind of "involvement" of customers in the process of development and improvement of services production). The higher the degree of customer involvement in the processes of service delivery, the greater importance is attached to the study of customer interests in the activities of enterprises in the market – the greater the degree of integration of the territorial complex of services in the system of regional and national economy.

The processes at the services market in the region are determined by the influence of factors at three levels – regional, national and global.

Local (regional) factors, such as resource background for the development of the service sector, real opportunities for enterprises to create the supply of such services, demand for services in the region (consumer needs), the role of local authorities in facilitating the development of the regional market, in our view, are of extreme importance. Here is an example of the development of tourism enterprises related to the service sector around a particular tourist attraction in the region. Resources (availability of tourist attractions) form the basis for offering tourist, hotel and restaurant services and amenities around such an attraction. If the existing entrepreneurial potential is able to accumulate its capabilities, and able to show elasticity if necessary – to change the specialization by responding to the need (in this case – the need for recreation), then with the assistance (or at least not impediment) from the side of local authorities, the result can be to create a range of enterprises at a certain territory, which will provide tourist and recreational services in accordance with the emerging demand. National factors include legislative background, the macroeconomic situation in the country, the governmental support for the development of the regions. The macroeconomic situation describes the general conditions for the functioning of services markets – for example, the presence of solvent demand for services which is highly dependent from the income level. National legislation in the sphere of functioning of a service company both creates general conditions for work and implementation of the principle of freedom of enterprise, and can provide special favorable conditions for business development in particular areas by easing tax pressure. Global factors shape the general trends in the service sector, promote the diffusion of innovative technologies and best management practices in service delivery, create favorable or discriminatory conditions for international trade in services, including restrictions or ease in the entry of local service providers into the international market. Table 1 lists the factors influencing the development of regional services market.

Thus, the formation and development of the services market in the region is influenced by the intra-regional needs of certain services from the side of the population and enterprises. After all, as some authors point out, the industries that are intended to serve the population of the region are more oriented towards meeting specific regional needs. They fulfill the common economic needs as regional needs, which are part of the national economic needs, as well as the regional economy is a structural part of the national economy of Ukraine (Yemets, Lendyel, 1992).

Thus, the sphere of services of the region is intended, firstly, to meet the needs of the population and enterprises of the region, and, secondly, to create and implement services for external consumers outside the region – to citizens of Ukraine and enterprises from other regions, and to foreign consumers. At the same time, the status of the border area and close proximity to the state border should create significant advantages for enterprises willing to meet a foreign buyer. On the other hand, such a territorial approximation implies an increased reverse effect of cross-border trade in services on the emergence of local markets.

For a detailed analysis of the status, trends and prospects of the services market development in Ukaine in regional context, it is necessary to define the institutional and specific structure of the market.

Considering the general approaches to the allocation of services sector in the structure of the national economy (Danylyshyn, 2005), (Chernysh, 2005), (Fedoron'ko & Kovalchuk, 2017), their consistency with the existing rules of statistical accounting and the

Table 1
Factors, influencing the development of regional services markets

Global	National	Local (regional)
scientific and technological progress, and structural and technological changes in production	general macroeconomic situation in the country	needs for services from local and external customers
increasing living standards and growing demand for services	national legislation in the field of entrepreneurship	resource potential of the region in terms of development of specific sectors of services
liberalization of international trade in services	level of involvement of the country in international trade and integration processes	competitiveness of regional enterprises and elasticity of production structure
international economic integration		a vision of the development of services market by local authorities

Source: built by the authors

system of national accounts, it is possible to define the regional services market as a system that integrated elements (institutional units providivng services) which are referred by the methodology of statistics to certain kinds of activity and provide services that can be considered as marketable by their economic characteristics. The division of services by economic characteristics and institutional units is based on the definition of market and non-market output by the System of National Accounts (SNA) and is widely used in scientific research as the main criterion for the division of services.

Institutional units that provide services under the SNA are: non-financial corporations, financial corporations, public sector, household sector and non-profit sector serving households (United Nations Statistics Division, 2012). It should be added that the great role of service providers at the regional level is played by individual entrepreneurs, but the statistical account of the volume of services provided by them is extremely imperfect, which narrows the possibilities of an adequate assessment of their role at the market.

Since 2002, the Statistical Service of Ukraine is conducting a statistical survey of the non-financial services enterprises activities, which covers the activities of business entities identified as service businesses (by their main activity). Such surveys are conducted in accordance with the National Classification of Kinds of Economic Activity, in accordance with the System of National Accounts and with the requirements of the United Nations. According to the methodology of service statistics, non-financial services by types of economic activity are classified into Sections:

Section G (maintenance and repair of motor vehicles, motorcycles; repair of household goods and personal items), Section H (operation of hotels and other temporary accommodation), Section I (transport and communication activities), Section K (Real estate activities, renting, engineering and business services), Section M (education), Section N (Health and social assistance), Section O (Provision of public utilities and individual services; cultural and sports activities) (State Statistics Service of Ukraine, 2011).

The study of regional service markets development requires introduction of an additional criterion of classification – the direction (level) of provision on the basis of consumer's residence. In the processes of regionalization and globalization of the economy, the problem of identifying those sectors of the regional economy that form competitive positions of the territory, including in the world market, is of great importance. Thus, in the direction of service delivery, it is advisable to divide them into those that provide services mostly for local needs (from the population, businesses), and those that are considered in the long term as a product of industries specializing in the region and focused on external consumers.

Thus, by all defined criteria, the regional services market covers the activities of economic entities (legal entities, their branches and separate subdivisions and natural persons – entrepreneurs of the region), providing non-financial services on a market basis, at economically significant price for the aim of getting profit. The main indicators for assessing the development of regional service markets are: the total volume of services produced and rendered, the share of regions in national production of services, the contribution of the service sector to the creation of gross regional product (in %), the number of enterprises active in the service sector and employment in such enterprises, as well as the level of integration of regional services markets into the global one, which is estimated by the overall indicators of foreign trade performance (exports, imports, trade balance, foreign trade ratio).

The total value of the services provided in 2018 was more than 702 UAH billion (State Statistics Service of Ukraine, 2019). However, this sum is not including the data of enterprises, which are not covered by a regional statistics and are submitting statistical reports without distribution by region. The additional amount of such services is more than 70 UAH billion. The study of regional shares in the total production of services shows that the Kyiv city, Odesa, Dnipropetrovsk and Kharkiv regions are the main producers of services in Ukraine. These regions however are the most populated and developed in the sense of number of

active enterprises that explains the high demand for services. The less populated regions – Khmelnytsky, Chernivtsy, Sumy, and the unoccupied territory of Luhansk regions have less than 1% share in the total productions of services across the national economy. Lviv region is a unique for having a share of almost 6% that is almost equal to the share of Kyiv region (while Lviv region is having relatively less population and high share of people living in rural area, that usually causes low demand for services). Most services in Ukraine are consumed by the enterprises (about 65%). However all the regions can be divided into three groups: those, in which services predominantly are consumed by the enterprises, those where services are provided mostly to individuals and those where the share of legal entities and individual consumers is about equal. Enterprises in Ukraine are consuming transport services, warehousing and support activity in the sphere of transport, services in the sphere of law, accounting and auditiong, architecture and engineering, technical testing and research, activity of the head-offices, management consultancy, R&D. Individual consumers are mostly buying temporary accommodation and catering, education, telecommunications (electric communications), healthcare, art, sport, entertainments and recreation services. Table 2 shows the breakdown of regions according to the share of enterprises and individuals in the total consumption of services.

As the table 2 shows, in most (17) regions enterprises prevail in the share of consumed services, in others (6) businesses and individual consumers have roughly the same numbers. Only in the unoccupied part of the Luhansk region and in the Chernivtsi region services are mainly consumed by the population. Kyiv, Kirovohrad and Dnipropetrovsk regions have the largest share of enterprises in the structure of consumption of services, which is explained by high entrepreneurial activity in the regions itself. This division, in our opinion, does not significantly depend on the geographical location, but rather on the level of development of business in the region. It should also be borne in mind that a significant amount of services in Ukraine is provided by self-employed individuals. However, statistical records in terms of services provided by them are not maintained, and therefore cannot be taken into account.

The number of jobs created in services sector is an important aspect of the services market development and way of assessing the contribution of the tertiary sector to regional development. In general, agriculture in Ukraine employs about 18% of workers, industry – 15%, construction – 4%, the rest 63% of jobs refer to services sector, including financial services and public administration. This indicator is close to employment data of developed countries, but the leading role of education and health services, which remain labor intensive even in developed countries due to the specific nature of their delivery, must be taken into account. In all regions of Ukraine, the largest number of population is employed in education and medicine – more than 2.4 million people (State Statistics Service of Ukraine, 2018). Most educational and medical institutions are budgetary institutions and provide non-market services, and therefore cannot be calculated in our study. The analysis of the other services sectors in terms of employment shows the following:

1) in spite of the expectation that the regions in which the largest number of employees are involved in the

Table 2

Regions of Ukraine according to the share of enterprises and individuals in consumption of services

Regions, where services are predominantly consumed by enterprises (17)	Regions, where services are predominantly consumed by individuals (2)	Regions with almost equal share of enterprises and individuals in consumption of services (6)
Volyn	Chernivtsi	Vinnytsya
Dnipropetrovsk	Luhansk	Ivano-Frankivsk
Donetsk		Sumy
Zhytomyr		Ternopil
Zakarpattya		Kherson
Zaporizhzhya		Chernihiv
Kyiv		
Kirovohrad		
Lviv		
Mikolayiv		
Odesa		
Poltava		
Rivne		
Kharkiv		
Khmelnytskiy		
Cherkasy		
city of Kyiv		

Source: built by the authors based of data of (State Statistics Service of Ukraine, 2019)

service sector are the most populated regions, the latter do not have high employment rates in the enterprises providing market services, since the largest share of population is still employed in the "budget" part of services sector – education and medicine;
2) in highly urbanized regions (Dnipropetrovsk, Kyiv, Kharkiv regions) the role of employment in the transport sector is especially significant; a high number of jobs is created in close-to-border Lviv region and the coastal region of Odessa;
3) Lviv oblast is unique in terms of employment development in the catering sector and accommodation, which exceeds all regions of Ukraine except Kyiv by the number of employed in this field. This is explained by the tourist attractiveness of the region and the high level of development of tourist and recreational infrastructure;
4) Kyiv is the undisputed leader in terms of employment in information and telecommunications sector, with more than 90,000 jobs (for comparison, in Kharkiv region, where population is 200,000 more than the population of Kyiv city, only 25,000 people are working in the field of information and telecommunications).

After Ukraine's participation in the WTO, particularly in the General Agreement on Trade in Services, the competitive environment in the national market has improved significantly, and consumers have accordingly benefited from the consumption of a larger range and quality of service products. Ukraine has made commitments in the main sectors of GATS, including business services, communications, distribution, education and environmental services, finance (insurance and banking), and healthcare. This list also includes social services, tourism and travel services, recreation, culture and sports, transportation services, beauty services (hairdressing, spa and massage). Ukraine has pledged not to discriminate against foreign companies in the vast majority of service sectors, except in such areas as security and investigation services, audiovisual services, space transport services, towing and unloading services by sea and rail. Restrictions were introduced in a number of sectors (inland waterway and rail transport, land operations), as well as on foreign capital and the presence of foreign persons. Ukraine is actively applying WTO mechanisms to protect national interests, while liberalizing access rules to the national market, which ultimately leads to an increase in exports and imports of services.

The EU-Ukraine Association has also had a positive impact on Ukraine's foreign trade in services with the EU member states. The overall indicators of export and import have increased, the positive balance of trade in services is maintained and the share of the innovative, scientific and technical and information services in the structure of Ukrainian exports is constantly growing. In 2019, Ukrainian enterprises sold export services for more than US $ 15,5 billion, that is nearly 2,5 times more than the volume of services imported into Ukraine (US $ 6,4 billion) (*State Statistical Service of Ukraine, 2020*).

Data available on the quantity of active enterprises show that in total, almost 7,000 Ukrainian enterprises exported services in 2018. Most of the enterprises were registered in Kyiv city (2,823 units) and in Kyiv region (300), in the coastal Odessa (812) and western regions bordering the EU – Transcarpathian region (194) and Lviv (576) (*State Statistical Service of Ukraine, 2019*). Exporters from Mykolaiv, Chernivtsi, Transcarpathian, Ternopil and Lviv regions were the most effective in their activity, as the export coverage ratio was 7.1 and higher (with an average ratio of 2,4 in Ukraine). Only 4 regions have had negative foreign trade in services coverage ratio (much less than 1) – Donetsk, Dnipropetrovsk, Volyn and Vinnytsya regions, and three regions were close to 1.0 ratio when export and imports were almost equal. Data on the Autonomous Republic of Crimea and the occupied territories of Donetsk and Luhansk regions are not taken into account in the calculation of indicators.

Almost one-third of all exports of services from Ukraine refers to the city of Kyiv (30.5% in 2018 and 26,8% in 2019), and the largest amounts of services related to national exports were coming from Lviv, Mykolaiv, Kharkiv, Kyiv and Transcarpathia regions. Kyiv city imports almost half of the services from abroad (50,5% in 2019), followed by Dnipropetrovsk, Kyiv and Odesa regions (*State Statistical Service of Ukraine, 2020*).

Liberalization of trade in services generally and improvement of trading conditions with the EU countries in particular had the most obvious impact on the indicators of regions of Ukraine, which are bordering with the Union. For example, 10 years ago (in 2010), the Transcarpathian region ranked only 15th in Ukraine in terms of export of services, while today it is at the 7th place according to this indicator. Considering the state and dynamics of foreign economic activity of enterprises, given by the official statistics service, we can state:
– most regions of Ukraine show positive dynamics of foreign trade in services;
– by the period of 2015–2019, the rapid decline in trade in services caused by military conflict in the East of Ukraine was compensated due to the increase in exports from Kyiv and Kyiv region, southern Odessa and Mykolaiv, and western Lviv and Transcarpathian regions;
– the structure of foreign trade in services is being improved in all regions – the role of traditional services (transport and communication) is decreasing, while the share of the modern services in the field of telecommunications, computer and information is increasing. At the same time, the import volumes of leasing operations, tourist trips abroad and the

volume of air transport are also increasing (which is a clear consequence of the liberalization of trade with the EU and the introduction of a visa-free regime with the EU).

3. Conslusions

The socio-economic nature of the services market is seen in its economic and specific functions. The services market acts as a set of relations in production and consumption of services, based on the processes of their sale and purchase at a price, which is set by the forces of supply and demand under the indirect influence of the non-market segment on the environment of these relations.

The main two functions of the services market are the creation of a comfortable and favorable living environment for the population, and the provision of conditions for the development of efficient manufacturing and other sectors of the national economy. The study of regional peculiarities of the services market development confirms, that the dynamics of processes in the market, the structure of consumption of services is determined first of all by the needs of potential consumers. Some regions, such as industrial Kharkiv and Dnipropetrovsk, have regional service markets focused on providing business services (services provided to enterprises), and at the same time have a developed transport services sector due to the high degree of urbanization. Kyiv region and Kyiv city concentrate the largest number of enterprises and employees in the service sector and are the leaders of the information and telecommunication services market. The bordering regions of Lviv and Transcarpathia make a significant contribution to foreign trade in services of Ukraine, mainly with the European Union.

The Ukrainian tertiary sector is developing under the influence of local, national and global factors. Over the past years, Ukraine's economy has experienced at least two external shocks – the global economic crisis and the Russian military invasion. However, significant reductions in the volume of service provision due to the loss of parts of Donetsk and Luhansk regions were successfully offset by the revitalization of enterprises in other regions. The positive impact of Ukraine's accession to the WTO was reflected in the growth of foreign trade in services, improvement of the structure of exports due to increasing the share of modern research, information and business services.

Currently, Ukraine's economy is overcoming economic crisis caused by the COVID-19 pandemic, which will unevitably cause great losses in regional and foreign trade in services. Thus, the influence of pandemic on trade in services will be the topic of the further studies.

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PECULIARITIES OF THE CONSUMER PERCEPTION OF UKRAINIAN AND FOREIGN BRANDS

Olena Vartanova[1], Inna Korol[2]

Abstract. Ensuring sustainable competitive advantages is the main goal of the company in a chaotic and unpredictable change in the business environment. Sustainable and long-term competitive advantages are formed mainly on the basis of the new combinations or new ways of using intangible assets: they give impetus to the company's development and innovation in a rapidly transforming environment. One of such unique assets of the enterprise becomes a brand. The brand is the bearer of the value of the product in the consumer perception, and is often more attractive to the consumer than the actual consumer value of the product. Consumer perception of the brand is determined by a large number of factors, including personal and psychological factors that reflect the patterns of human consumer behavior and order its coexistence habits. The study of these aspects of consumer behavior is an extremely important task of marketing. The subject of the research is *theoretical-methodical* and *practical aspects* of peculiarities and factors of consumer perception of Ukrainian and foreign brands. The *purpose* of the article is to form a theoretical and methodological basis for determining and comparing the characteristics of the perception of domestic and foreign brands by Ukrainian consumers with different socio-demographic characteristics. In line with this goal, the research *methodology* is based on the use of expert survey methods to determine the characteristics of consumer perception of brands using Google Forms. The sample size is 169 people. Respondents were asked to rate 14 foreign and 11 Ukrainian most popular clothing brands according to selected parameters. To confirm the hypotheses formed in the study, the calculation of the Fisher's angular transformation criterion φ was used. According to the *results* of the study of features and factors of consumer perception of Ukrainian and foreign brands by Ukrainian consumers, the hypotheses about the greater commitment of Ukrainian consumers to foreign brands was confirmed (consumer perception of the ZARA brand exceeds the perception of the H&M brand, consumer confidence in foreign brands exceeds the trust in Ukrainian brands). Fisher's angular transformation criterion is used to confirm the hypotheses.

Key words: brand, confidence, consumer perception, consumer behavior, brand quality, Fisher's angular transformation criterion, brand perception, consumers, trust to brand.

JEL Classification: D11, D19

1. Introduction

The modern world is a world of lightning transformations, the characteristics of which are volatility, uncertainty, complexity, and unpredictability of the business environment. Current trends in the business environment – globalization, internationalization, transnationalization, digitalization, increasing competition for markets and resources – all determine the need for continuous development, only if modern companies can keep up with changes in the business environment. It is known that sustainable and long-term competitive advantages are formed mainly on the basis of the new combinations or new ways of using intangible assets: they give impetus to the company's development and innovation in a rapidly transforming environment. One of such unique assets of the enterprise becomes a brand. A brand is an intangible asset whose value lies in its recognition by consumers and the formation of the positive associations associated with it. A brand is often associated with a brand, but in reality, the brand has much more meaning than just a graphic image, logo, or melody inherent in the brand, as it includes the entire set of intangible assets used to create and promote a particular product.

If at the dawn of the commodity-money relations a person made a choice in favor of product characteristics

Corresponding author:
[1] Cherkasy State Technological University, Ukraine.
E-mail: e.vartanova9207@gmail.com
ORCID: https://orcid.org/0000-0002-8706-6437
[2] Cherkasy State Technological University, Ukraine.
E-mail: mega.0669667560@ukr.net

in terms of quality, usefulness, and functionality, then modern motives for purchase are often made unconsciously, under the impulse influence and desire to get positive emotions and pleasure and cover almost all steps of Maslow's pyramid. One of the factors that significantly influence consumer behavior and encourages product consumption is the brand and its perception by the consumer.

In today's world, the brand is receiving more and more attention: open brand agencies, research conducted in this area. And this is quite justified because the main function of the brand – to establish an emotional connection between producer and consumer. The brand helps a person choose from hundreds of identical products the one that will best meet his expectations.

2. Analysis of the recent publications

Such scientists as O. Guseva, F. Kotler, M. Makashev, O. Melnikova, T. Primak, A. Demitriev, E. Sheregi, I. Shutanov, I.M. Lindstrom, I. Bablenkov, I. Vikentyev, O. Godin made a significant contribution to the study aspects of brand formation. Many studies by consumers and practitioners on consumer perception make it possible to identify factors, motives, and general patterns of consumer behavior, but insufficiently investigated issues of brand association and consumer preferences, which are generally hidden and often beyond their rational perception. Research on the irrational nature of the brand allows us to determine the boundaries of irrational consumer behavior, identify irrational factors of brand perception, and form an appropriate marketing communications strategy. This determines the relevance of the study to the peculiarities consumer perception of Ukrainian brands and foreign clothing manufacturers.

3. Presentation of the main research material

According to the known understanding, a brand is a set of ideas, thoughts, associations, emotions, value characteristics about a product or service in the minds of consumers; the mental shell of a product or service. The brand itself is an abstract concept. Its physical components (carriers) are the whole set of elements the corporate style: brand name (word, phrase), logo (trademark) with the principles of its construction, a palette of corporate colors that supports corporate identity, original graphics, a set of phrases, sounds, brand and other. Thus, the brand is a multi-valued and low component concept, which is difficult to define unambiguously.

In the mainstream of modern marketing, the brand is seen in the plane of inseparable relationship with the consumption processes and the psychology of consumer behavior of potential buyers: "Marketing is not a battle of products, but a battle of perceptions and the struggle of producers. In the process of interaction with the environment, through the filter of the human perception, we can assume that a person moves from needs to emotions through motives" (Kotler, Pferch, 2007).

The mechanism of the brand's relationship with the consumer is realized through consumer motives, which are derived from needs but have a more detailed and focused nature. Such relationships form the content of the brand through a rational combination and emotional relationships with the brand, which, in turn, create and implement behavioral relationships with the brand (Koval, Romanchuk, 2010). So the brand creates a strong connection between the consumer and the product, which is based on a certain associative series.

There are two types of associations in marketing: primary and secondary. Primary associations are a set of images and representations that are directly related to the brand (logo, product packaging, price, etc.). All these elements the consumer can see and quickly remembered, and just as quickly erased from memory if the brand did not interest the person.

Secondary associations form an emotional attachment, they remain in a person's consciousness for a long time. These are abstract concepts related to the basic values laid down in childhood, established principles, and people's ideas about themselves or the world around them. Marketers work hard to firmly link brand attributes to consumer needs, values, and principles, evoke the right emotional responses, and thus create the emotional attachment of the brand's consumer.

Associations that arise in the consumer about the product and brand are united in a kind of relationship. These connections are maintained through a system of marketing communications – the appearance of packaging, location, music, flavor, color, logo, advertising, etc. Each of these elements is designed to emotionally affect the consumer: to cause him positive emotions (fleeting) and stable associations (long-term). Accordingly, the consumer can buy the product only because he liked the song from the advertisement, product packaging, or remembered the original name of the manufacturer's site.

However, the consumer perception mechanism of the brand is not as simple as it seems at first glance. Everyone can have different associations with the same phenomenon, product, subject, and other elements of the brand. For example, people may react differently to a company name. In some, it can cause positive associations, in others – negative. And if the formation of primary associations can be influenced by prices or advertising, the secondary associations are formed purely individually, are very subjective, and can have huge differences for each individual consumer. This makes it extremely important to take a serious approach to the process of brand positioning

and elements of marketing communications, which allows us to predict, based on the structure and characteristics of the target audience, which will be associated with certain elements of marketing communications, and assess consumer perception of the brand.

It should be noted that the needs of consumers in a particular period of time do not necessarily coincide with those components that strengthen the brand as a strategic resource at the enterprise. For example, market orientation may conflict with a long-term brand development strategy, and ideally, the company should focus on market needs and the values of its own development, which are reflected in the brand and marketing communications system (Riley, Remizova, Kalafatis, Singh, 2012).

The main thing in this process is the delimitation of the brand. An example is the line of suits under Colin's brand, which was not accepted by the market. Meanwhile, the Gillette brand has successfully expanded into the field of aftershave skincare products. It turns out that even if the product category of expansion intuitively corresponds to the category of "parent" brand. Marks & Spencer, a clothing retailer, began providing financial services under its own brand. Despite the fact that the expansion was carried out in a fundamentally new market segment, it was perceived positively by consumers due to the trust in the company's brand. Thus, the basic characteristics of the brand and its emotional "anchors", which have a strong impact on the consumer, are transferred to the new product and form the commitment of consumers. This thesis is confirmed by the opinion of a well-known expert in the field of marketing and branding Philip Kotler, who believes that in addition to the rational component of the brand to a greater extent provides consumers with emotional benefits (Kotler, Pferch, 2007).

4. Description of research and calculations

We will conduct research and compare the peculiarities of perception the domestic and foreign brands by Ukrainian consumers with different socio-demographic characteristics, which will help to understand in which areas work is needed to change the image of domestic brands primarily to strengthen the image of domestic brands and increase consumer loyalty. For the purposes were selected of the study Ukrainian and foreign brands of a clothing manufacturer.

The sample consisted of 169 people different ages and social statuses, living mainly in Cherkasy and Cherkasy region. The following sample characteristics were taken into account: gender (82 men, 87 women), age (16-60 years; median 24.5 years). The review was conducted by survey (offline and online, using Coocle Formes).

During the research, it was found that the interviewed respondents prefer foreign clothing brands to Ukrainian ones. In addition, domestic brands are little known to consumers, so about 12% of respondents did not provide information on their use of Ukrainian clothing brands (do not use or do not know any Ukrainian brands). Data on consumer use of Ukrainian and foreign brands are shown in the Table 1 (each respondent could name several brands he prefers). The study revealed Ukrainian and foreign brands known to consumers, among Ukrainian brands dominated by "mass market" brands, and among foreign – brands of the mass market segment and the middle price segment.

Table 1
Distribution of Ukrainian and foreign clothing brands known to consumers

Foreign brands		Ukrainian brands	
Brand name	Number of informed consumers	Brand name	Number of informed consumers
Zara	63	Kachorovska	11
H&M	38	MustHave	9
NIKE	37	Dolcedonna	7
Pull&Bear	23	Folk moda	4
Stradivarius	21	Factory "Lesya Ukrainka"	3
Bershka	19	Andre Tan	2
Oodji	19	VOVK	2
Adidas	16	N&M	2
Colin's	14	Madgie	2
Mango	14	B`YurSe	2
Cropp	12	Charodeyki	2
Milavitsa	12		
Mohito	11		
Reserved	10		

Data analysis Table 1 shows that respondents are much better aware of foreign brands than domestic ones, and use them more often. The number of mentions the foreign brands is 7.5 times higher than the number of mentions of domestic brands. Among foreign brands, the most popular are ZARA, H & M, and NIKE, among Ukrainian – Kachorovska, MustHave, Dolcedonna.

Often Ukrainian brands use English names, "disguising" themselves, thus, under foreign brands.

For a more detailed study of Ukrainian and foreign clothing brands, several characteristics of brands were selected, which determine their quality and influence the perception of brands by consumers. These include quality, representation, trust, history, uniqueness, personification. The results of consumer surveys on the criteria perception of the brands by consumers are presented in Table 2 and in Figure 1 and 2.

Table 2

Evaluation of the quality parameters of clothing brands that affect the perception of the brand by consumers

Measured parameter	Foreign brand		Ukrainian brand	
	Number of respondents	%	Number of respondents	%
Quality	126	74,7	43	25,3
Representation	122	72,5	65	38,2
Trust	140	**83,2**	56	**33,1**
History	64	38,2	24	14
Uniqueness	74	43,8	35	20,9
Personification	105	62,4	29	16,9
Number of observations in the sample	631	63,0	252	25,0

To test the hypotheses presented in this study on a more positive perception of the quality of foreign brands compared to Ukrainian, the calculation of the Fisher angular transformation criterion was used (Lozhkin, Komarovska, 2014). To do this, we formulate two assumptions.

Assumptions 1. To test the hypotheses presented in this study on a more positive perception of the quality of foreign brands compared to Ukrainian, the calculation of the Fisher angular transformation criterion was used (Lozhkin, Komarovska, 2014). To do this, we formulate two assumptions.

Consumer perception of the brand Mango will always exceed the perception of the brand Kachorovska (Ukraine).

We form two statistically opposite assumptions: but – there is no discrepancy between the consumers' perception of the Mango brand and the perception of the Kachorovska brand (refutation of the hypothesis); H1 – there is a discrepancy between the consumer perception of the Mango brand and the perception of the Kachorovska brand (confirmation of the hypothesis). We calculate the empirical value of the Fisher angular transformation criterion (Lozhkin, Komarovska, 2014).

$$\Phi_{omv} = (\varphi_1-\varphi_2) \times \sqrt{(n_1 \times n_2)} \div (n_1+n_2), \quad (1)$$

where φ_1 – an angle that corresponds to a higher percentage;

φ_2 – an angle that corresponds to a smaller percentage;

n_1 – number of observations in the sample 1;

n_2 – number of observations in the sample 2.

$$\varphi_{omv} = (0{,}584-0{,}516) \times \sqrt{(309 \times 46)} \div (309+46) = 0{,}46$$

The obtained empirical value of φ_{omv} = 0,46 is compared with the critical values of the Fisher coefficient φ_{omv}= 0.4 ≤ φ * critical = 1.64 (Lozhkin, Komarovska, 2014). Since the φ_{omv} less than the critical value of the Fisher coefficient, the hypothesis of the predominant consumer perception of the Mango brand compared to the Kachorovska brand is refuted.

Assumption 2. Consumer confidence in foreign brands will always exceed trust in Ukrainian brands. We form two statistically opposite assumptions: But – there is no discrepancy between consumer confidence in foreign and Ukrainian brands (refutation of the hypothesis); H1 – there are differences between consumer confidence in foreign and Ukrainian brands (confirmation of the hypothesis).

$$\Phi_{omv} = (1{,}312-0{,}988) \times \sqrt{(631 \times 252)} \div \div (631 + 252) = 14{,}36$$

The obtained empirical value φomv compare with the critical values of the Fisher coefficient φ_{cvc} = 2.31; and ≥0.099 (ρ = 0.01) (Pachkovsky, Maksimenko, 2014); which means confirmation of the assumption of H1 on the difference between the perception of the quality of foreign and Ukrainian brands (empirical value of the criterion φ_{omv} = 14.36 more than the critical value

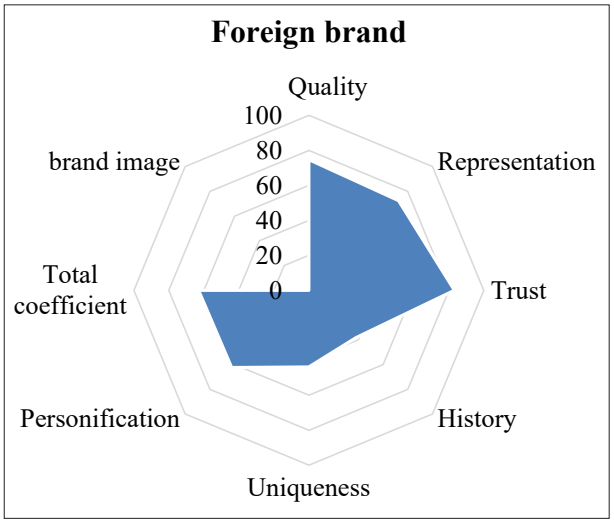

Figure 1. Criteria for consumer perception of foreign clothing brands

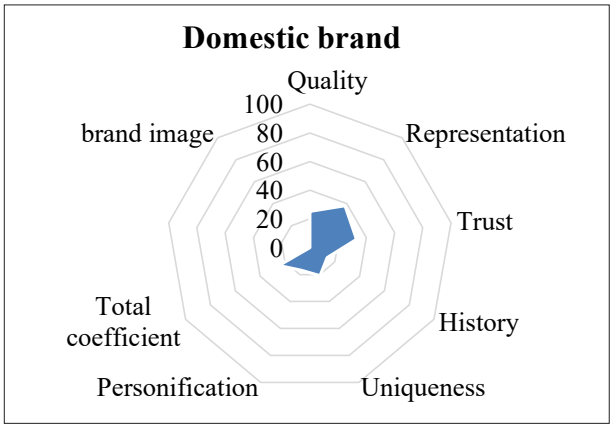

Figure 2. Criteria for consumer perception of the foreign clothing brands

φ_{cvc} = 2.31), the probability of assumptions is more than 0.999, the probability of error = 0.001, which confirms the hypothesis that consumer confidence in foreign brands will exceed confidence in Ukrainian brands.

5. Conclusion

The results of the study show that the perception of Ukrainian consumers of foreign clothing brands in all respects exceeds the perception of Ukrainian brands. The difference in the perception of brands in terms of "trust", "quality" and "personalization" is especially noticeable, which demonstrates the main advantages of foreign brands of clothing manufacturers over Ukrainian ones. Testing the hypothesis of the consumer confidence in foreign brands has shown that consumers trust foreign brands more than Ukrainian ones.

The profile of the perception the foreign clothing brands manufacturers shows a high level of trust in them, which indicates that consumers tend to automatically choose a foreign brand of clothing based on heuristics ("foreign – means good"), rather than making rational choices. This is partly explained by the concepts of behavioral economics and cognitive distortions of the consumers in the consumer decision-making process. Ukrainian consumers rate the quality of foreign brands as higher, and domestic clothing brands perceive them as low-quality, do not trust them, which also contributes to the choice in favor of foreign brands.

The last difference is particularly interesting: theoretically, Ukrainian brands should evoke a stronger personification, as there are significant opportunities to use the mechanism of brand identification: "own", "the same as me". Perhaps the lack of a victorious identification of Ukrainian brands by local consumers, with "uniqueness" is associated with the attempt of Ukrainian brands to "disguise" themselves under foreign brands in order not to emphasize their Ukrainian origin, which violates communication with Ukrainian consumers, reduces the strength of Ukrainian brands and opportunities to build effective brand communication.

The obtained results can be used in the construction of brand communication of the enterprises – clothing manufacturers, as well as a basis for the further socio-psychological study of the brands' perception mechanisms as objects of social cognition.

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STRATEGIC PRIORITIES AND MECHANISMS FOR ENSURING THE COMPETITIVENESS OF AMALGAMATED HROMADAS IN THE CONTEXT OF DECENTRALIZATION OF POWER

Alla Kinshchak[1], Solomiia Kloba[2]

Abstract. *The purpose* of the article is to summarize and present strategic priorities and mechanisms for ensuring the competitiveness of regions in decentralization. The sequence of actions, the algorithm that will determine the strategic importance of development and select appropriate means to ensure the area's competitiveness. *Methodology*. The SWOT-analysis method is based on the analysis of factors and factors of competitive advantages of regions with the help of fundamental parameters (accessibility, the economic feasibility of use; sufficient transport potential; involvement of the local population in resource development). To determine the priorities of directed financial flows, the structure of community expenditures was considered (Velykomostyska city Amalgamated hromada as a representative of Amalgamated hromada with a city centre; Solonkivska rural Amalgamated hromada as a representative of Amalgamated hromada – a satellite of a large city; Slavske village Amalgamated hromada as a representative of Amalgamated hromada tourism). The effective use of tools has been identified, and the priorities facing the region (including Amalgamated hromada) need to be clearly defined to achieve enhanced competitive advantages. *Results*. Results show that an additional mechanism to strengthen competitive advantage is the inclusion of local producers of products or services in the global chain of multinational companies while considering the threat of significant dependence on foreign markets. The implementation of mechanisms must include at least two components: financial, economic and organizational. All measures include synchronization of actions of local authorities, public organizations, business to ensure mechanisms for implementing strategic development programs based on analytical research and monitoring in the context of adaptation to global challenges, the need to implement the rules of the Association Agreement between Ukraine and the EU. *Practical implications.* The active position of the community in defining strategic priorities and clearly defining the mechanism for strengthening the competitive advantages of Amalgamated hromada will significantly improve the quality of life and, consequently, the attractiveness of the territory for potential residents. Increasing the population intensifies the development of the social sphere and the sphere of trade, which will increase revenues to the community budget. Thus, a clear vision of the community leadership of strategic guidelines allows the community to develop faster than before the reform. *Value/originality*. Strategic priorities and mechanisms for ensuring the competitiveness of regions in the context of decentralization of power provide a better understanding of their effectiveness by the budget process of the area or Amalgamated hromada.

Key words: strategic priorities, cooperation mechanisms, competitiveness, support mechanism.

JEL Classification: H72, O12, P27

1. Introduction

The practise of increasing the competitiveness of territories, as well as the study of foreign experience on this issue, showed the need to find new forms and methods to increase community competitiveness, develop a systematic approach to identifying strategic competitiveness goals, and implementing measures to achieve them. Strengthening competi-

Corresponding author:
[1] Main Department for Coordination
and Evaluation of the Effectiveness of Regional Policy, Ukraine.
E-mail: KinshchakAV@minregion.gov.ua
ORCID: https://orcid.org/0000-0001-7241-6628
ResearcherID: AAE-7659-2021
[2] State Institution "Institute of Regional Research
named after M.I. Dolishniy of NAS of Ukraine", Ukraine.
E-mail: solomiia@klioba.com
ORCID: https://orcid.org/0000-0003-4697-4866
ResearcherID: R-4509-2018

tive advantages is the key to the effective functioning of the united territorial community, including the achievement of such results as increased revenues to the community budget, efficient use of natural, demographic, financial, infrastructural, and other resources to achieve community self-sufficiency and meet all needs.

In today's conditions of decentralization, ensuring the competitiveness of local communities is a difficult problem because the level of socio-economic development of newly created communities differs dozens of times, and budget revenues can not meet all the needs of the community.

Strategic priorities and mechanisms for ensuring the competitiveness of regions in the context of decentralization of power in Ukraine since 2014 are natural processes of Ukraine's transition to liberal conditions of functioning in the economic environment and the economic environment in the socio-political one. Decentralization processes consist of redistribution of responsibilities, powers and financial flows from the state to the regional level.

For the regions, especially in the era of decentralization processes, the priority areas in which the newly received revenues from the redistribution of the revenue part of the Consolidated Budget of Ukraine will be spent become significant decentralization of power.

2. Research results

Significant experience of enterprise competitiveness should be adapted to the conditions of communities and take into account that local governments are not directly producers of marketable products (Koshlupov, 2012). Let's form the list of tools to increase of competitiveness of Amalgamated hromada: a thorough study of consumer demands and analysis of competitors; advertising; creation of new Amalgamated hromada products or services; improving the quality characteristics of products/ services; modernization of equipment, infrastructure; comprehensive cost reduction; service improvement; qualification of the workforce; labour costs; development of the transport system; cost of energy, approach to suppliers; quality of the management system; local tariffs and taxes; quality of the local banking system; availability of higher educational institutions; availability of research institutions; positive image of the city/region; living conditions; strengthening the health care system; institutions of culture, sports, recreation; public safety, etc.

For a quality solution, the evaluation of ways and tools to increase competitiveness, as a result, must meet the requirements shown in Figure 1.

Summarizing the content of Figure 1, note that at all stages of the evaluation of measures aimed at strengthening competitiveness, it is necessary to identify obstacles, overspending and ways to optimize the budget expenditures of the community.

The use of tools used to ensure the competitiveness of Amalgamated hromada in the context of decentralization reform in Ukraine alone will not have a sufficient effect to strengthen competitive advantage.

Therefore, in our opinion, it is necessary to form a sequence of actions. This algorithm will determine the strategic priorities of development and select appropriate mechanisms to ensure the region's competitiveness (Figure 2).

When forming a decision on defining strategic priorities, first of all, it is necessary to determine:
– the purpose of managing the region – what is the value created for the region (incoming cash flow, growth of customer base, increasing the number of innovations, etc.);
– identify a system of factors that affect regional potentials and their transformation, which are determined by the actual quantitative and qualitative availability, as well as management efficiency;
– to determine the person responsible for developing the organizational component, which will be tasked with the main tasks of implementing the strategy of the region through mechanisms to ensure regional competitiveness.

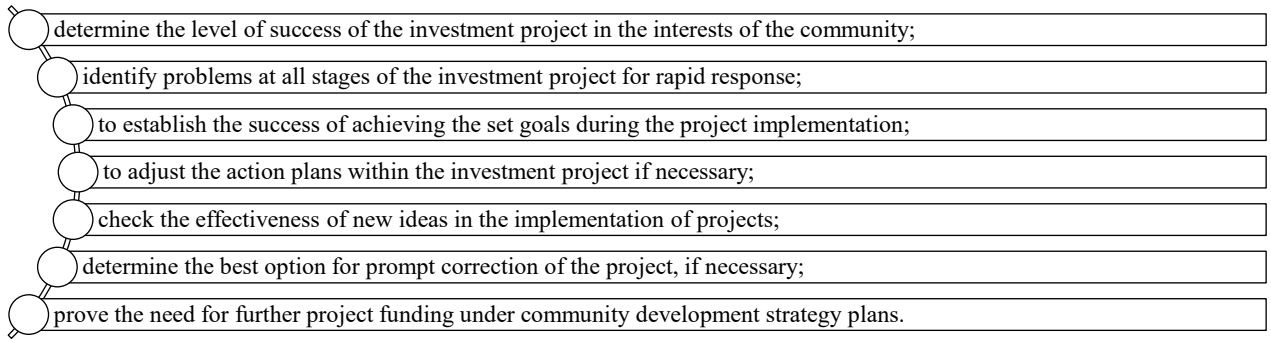

Figure 1. Requirements for evaluation of Amalgamated hromada investment projects.

Source: developed by the author on the basis of (Vasilchenko, Parasiuk, & Eremenko, 2015)

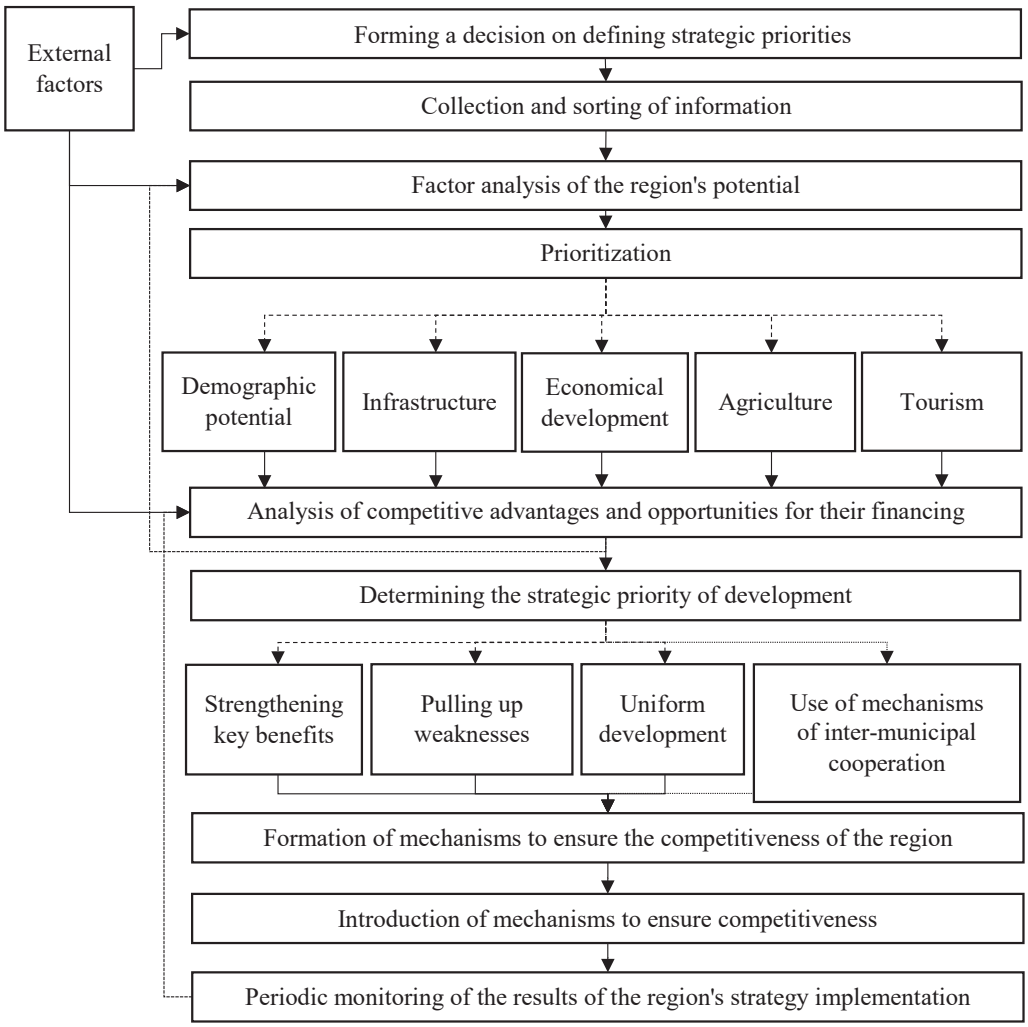

Figure 2. Algorithm for determining strategic priorities for regional development and implementation of mechanisms to ensure their competitiveness

Source: author's own development

We must not forget the external factors influencing competitiveness, which are objective for local communities. Their impact must be taken into account at almost every stage of determining the region's strategic priorities. For example, a change in state policy for the development of regional agriculture may provide Amalgamated hromada with additional resources in grants. Therefore, strategic priorities should be reconsidered.

An important place in the proposed algorithm is given to the collection and sorting of information. After making a final decision on the need to determine strategic priorities, it is worth considering the region's potential: resource, demographic, investment, economic, social and more. It is complete information about the area's features, and its potential will significantly improve its competitiveness.

To do this, a careful accumulation of available information about the potential and problems of the region and the appropriate sorting, in our opinion, it is advisable to use the method of SWOT-analysis.

3. The sequence of analysis of factors and factors of competitive advantage

The following parameters should analyze factors and factors of competitive advantage:

– availability;
– economic feasibility of use;
– sufficient transport potential;
– involvement of the local population in resource development, etc.

After conducting an analysis of competitive advantages and identifying key areas, the general direction of the necessary funding is formed either from local budgets or (if possible) from specialized funds, such as the State Fund for Rural Development (1)

$$SP = \sum \max f\left(x_1, x_2, x_3, \ldots x_n,\right), \quad (1)$$

where *SP* is a strategic priority, $f(x)$ is an aggregate expert assessment of the parameters of competitive advantage.

As an alternative to expert evaluation, evaluating the effectiveness of the implementation of funded projects can serve (2)

$$ESP = \frac{\sum Development\ costs}{\sum Revenues\ from\ projects} \quad (2)$$

If the calculated efficiency is less than one, then the financing of these projects can be confirmed by a significant social effect. Otherwise, there may be irrational financing of the competitive advantages of the region.

When choosing a strategic priority for the region's development by "pulling up weaknesses", state support mechanisms are often used. The issue of support and regulation of regional development by the state is quite deep, and we will consider in detail the means for increasing the competitiveness of regions through state influence:

– "stimulating" (with the predominance of market instruments and the creation of a favourable environment for the development of environmentally friendly industries and other activities in the ecosphere);
– "hard" (using administrative and financial and economic instruments of coercion and suppression through a strict tax policy for the development of environmentally hazardous industries);
– "soft" (with the establishment of a liberal restrictive environmental framework, which partially affects the pace and scale of ecological development). Ukraine has now formed a soft regulatory mechanism.

Also, Ukraine pays considerable attention to the foreign economic activity of the regions, for example, at the national level (in the Export Strategy of Ukraine ("road map" of strategic trade development) for 2017–2021) identifies the country's efforts to export knowledge-intensive innovative products for sustainable development and entering global markets. Including through the development of regional enterprises. The priority sectors of the economy for export development are the following (Zvit po Ukraini, 2018):

– development on an innovative basis of enterprises that are currently in a state of decline or the pace of development of which has slowed down, and which are concentrated in the aerospace industry and related (creation of software, information and communication technologies, production of spare parts, components and maintenance services for the aviation industry and mechanical engineering);
– promising in terms of improving the image of Ukraine abroad, which are in the process of formation (tourism sectors and creative industries) to attract tourists and promote the country's appearance on the world market by holding some relevant events by the government;
– strategic in terms of processing in Ukraine of raw materials for the production of high value-added products, which are in the growth stage and depend on the agro-industrial complex (food, processing industry and related industries, which provide positive results shortly).

To determine the priorities of financial flows, it is necessary to consider the cost structure of communities, taking into account the preferences and competitive advantages for analysis were taken Amalgamated hromada:

– Velykomostsy city Amalgamated hromada, as a representative of Amalgamated hromada with the centre in the city;
– Solonkivska rural Amalgamated hromada, as a representative of Amalgamated hromada – a satellite of a large city;
– Slavske village Amalgamated hromada, as a representative of Amalgamated hromada tourist direction (Figure 3).

According to Figure 3. there is a significant disproportion of expenditures, namely the concentration of urban Amalgamated hromada expenditures on education (60%) and health care (15%) of the local population. Thus, in our opinion, there is an attempt to optimize such a strategic priority of the city Amalgamated hromada as human potential, improving education and health care.

Maintaining the strategic direction of the region's development is especially important due to the circumstances that:

– Taxpayers – individuals and legal entities are the primary source of local budget. Therefore, the growth of their number is highly relevant to this community and region.
– Mostyska Amalgamated hromada is exceptionally close to the border with Poland, and therefore emigration processes are highly developed. Emigration of the working population creates unemployment and increases labour resources, which reduces the competitive advantages of this Amalgamated hromada.
– Given the fact that, on average, expenditures on education and medicine were the most significant expenditures before the decentralization process, it can be argued that Mostyska Amalgamated hromada has established a strategic priority aimed at strengthening competitive advantages over residents and employees of this Amalgamated hromada (weak alignment).

Lets's consider the tourist Slavske Amalgamated hromada and Amalgamated hromada – satellite Solonkivske Amalgamated hromada. There is a noticeable distribution between budget items aimed at national functions (e.g., fire protection), education and economic activity. This situation is due to the peculiarities of the functional direction – providing

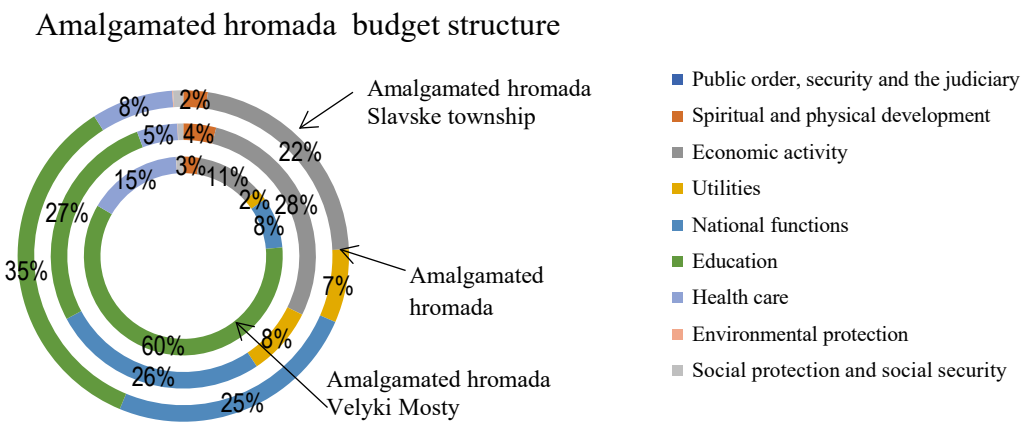

Figure 3. Amalgamated hromada budget structure

Source: compiled by the author on the basis (Karta donoriv detsentralizatsii)

Solonkivska Amalgamated hromada space for the construction of residential complexes and directing funds Slavske Amalgamated hromada for education to meet their own needs with highly qualified staff.

It should also be noted that Solonkivske Amalgamated hromada spends only 5% of the budget on health care (support of paramedics), as a large part of the population has the opportunity to visit hospitals located in the regional centre. Thus, there is a strategic priority – strengthening the strengths of Amalgamated hromada.

To determine strategic priorities, it should be noted to conduct both an analysis of resources and potential and the possibility of implementing mechanisms to increase the competitiveness of regions, as a combination of existing and potential tools to increase competitiveness into a single system.

4. Strategic priorities for increasing the competitiveness of regional development

For example, consider such a strategic priority as human development. To achieve this, you can use a variety of tools: thorough study of consumer demands and analysis of competitors; advertising; qualification of the workforce; cost of energy, approach to suppliers; quality of the management system; local tariffs and taxes; quality of the local banking system; positive image of the city/region; living conditions; public safety, etc.

Some measures will be sporadic and will not, in our opinion, have a significant impact on achieving the interest of citizens to immigrate or look for work in a particular region.

It would be better to combine these tools into a single system. Thus, increased public safety, infrastructure and high living conditions will interest potential immigrants to the region, and low tariffs due to the proximity to the supplier and the availability of a sufficient number of bank branches and ATMs will be an additional incentive pay attention to this Amalgamated hromada. At the same time, reducing this information to a single presentation, for example, in the form of infographics compared to other regions in the form of advertising, will potentially increase immigration due to its accessibility, informativeness and ease of presentation.

Thus, the mechanisms can differ – depending on the strategic priority of increasing competitiveness and the target audience.

For effective use of tools, it is necessary to clearly define the region's priorities (including Amalgamated hromada) to achieve enhanced competitive advantages (Figure 4).

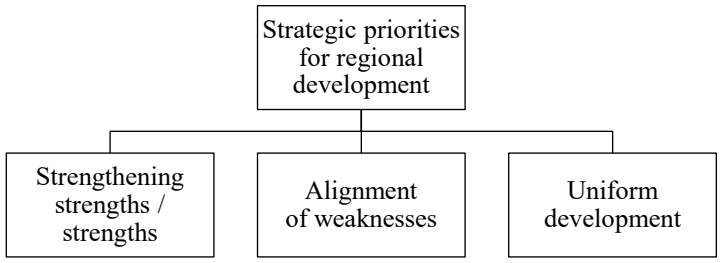

Figure 4. Regional development priorities

Source: author's own development

According to Figure 4, the main strategic priorities are determined as a result of the analysis of the resource, social, political and economic component. Depending on the available potential, the direction of investing funds in the region is determined.

1. Strengthening of strengths (e.g. tourism or industry) due to the sufficient current development of non-priority competitive advantages in the region, for example in the presence of transport infrastructure in Solonkivska Amalgamated hromada (close location of the regional centre formed the necessary utilities) to prioritize infrastructure development is inappropriate from an economic point of view. Therefore, it is needed to focus on other competitive advantages of the region. This approach should be applied to Amalgamated hromada leaders in terms of competitiveness, such as tourism or economic development. Thus, due to the growth of the local budget, Amalgamated hromada can compete not only within the region but also within Ukraine (for example, tourist complexes).

2. Equalization of weaknesses involves investing funds in solving the region's most complex and problematic regional problems. If we continue the parallel with the infrastructure, the lack of quality road surface in Vilshanska Amalgamated hromada significantly reduces the competitive position of the part. Thus, preference should be given to infrastructure projects that aim to improve the quality of transport connections between the studied Amalgamated hromada and other centres of the area or country (economic, social, industrial, etc.). In our opinion, this approach should be used by Amalgamated hromada outsiders to improve the existing competitive advantages.

3. In the absence of significant gaps in competitive advantage and sufficient funding, the region (including Amalgamated hromads) can evenly allocate available resources to a variety of socio-economic needs. Such development, in our opinion, is not compelling enough, as the priority development of potential strengths of the region will significantly increase the occupancy of local budgets over time. In our opinion, this approach should be used by those Amalgamated hromads that do not have significant competitive advantages, but their unprofitability (a local budget deficit) is not substantial.

It is worth noting the alternative of focusing on the individual development of the region. Yes, there are options for several Amalgamated hromadas to work together to complement the "weaknesses" of communities. Such a mechanism is provided by the existing Law of Ukraine "On Cooperation of Territorial Communities" since 2014 (Pro spivrobitnytstvo terytorialnykh hromad, 2014). To date, such a mechanism is not actively used due to the incompleteness of decentralization reform, the focus of communities on their resources or state support, low awareness of existing tools for cooperation. Consider the means of collaboration of united territorial communities in Figure 5.

Given that decentralization reform aims to self-determination by communities of Amalgamated hromada boundaries, problems arise when objects essential to the existence of communities are absent in newly created districts. Thus, as a mechanism of community cooperation, it is best represented in the commission of fire safety. In this example, both authority and finances are delegated to one of the Amalgamated hromads under the cooperation agreement. As of April 1, 2020, there are at least 40 similar agreements (Reiestr dohovoriv po spivrobitnytstvu terytorialnykh hromad, 2020).

The following mechanism of cooperation in implementing joint projects, usually infrastructure, includes the creation of archives, garbage collection, preschool education and more.

Cooperation mechanisms consisting in the joint formation and financing of enterprises and institutions of organizations can also have infrastructural or social significance, for example, provision of gas, water and energy supply to residents and enterprises of Amalgamated hromada, creation of new infrastructure (dams, reservoirs of power plants, etc.). which funding from one Amalgamated hromada will not be enough.

The formation of a joint governing body is not a popular mechanism for cooperation (about ten cooperation agreements have been signed (Reiestr

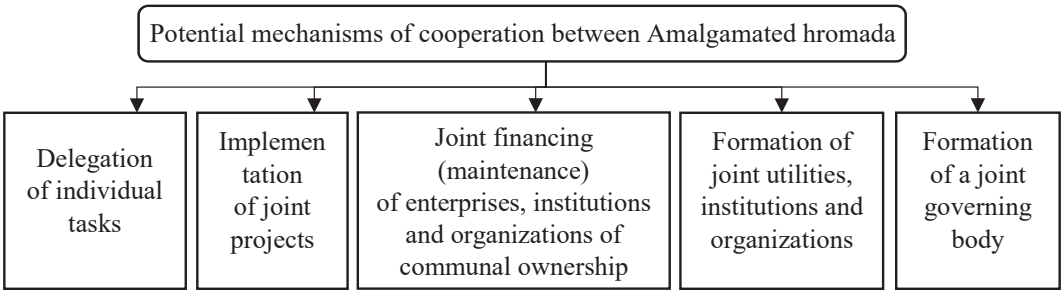

Figure 5. Mechanisms of cooperation between communities

Source: compiled by the author on the basis (Pro spivrobitnytstvo terytorialnykh hromad, 2014)

dohovoriv po spivrobitnytstvu terytorialnykh hromad, 2020)), and they usually deal with environmental issues.

In summary, as of April 1, 2020, there are 603 cooperation agreements between Amalgamated hromadas (Reiestr dohovoriv po spivrobitnytstvu terytorialnykh hromad, 2020), while the number of Amalgamated hromadas created on the same date is 980 communities. Thus, there is little activity in the direction of establishing cooperation between communities. To improve this situation, in our opinion, it is worth: introduce preferential lending for such projects; to carry out explanatory works among community leaders; intensify public-private partnerships, including on a competitive basis; actively implement cross-border cooperation between communities; create networks for the exchange of information on interregional cooperation, etc.

Given the orientation of the regions based on resource potential, it is advisable to identify the prospects for the development of areas (including state assistance in the form of project financing, such as SFRD), where production facilities are located through the following mechanisms:

– achieving a world level of efficiency in the use of material and production resources in production activities;
– formation of the optimal production structure of the region (including Amalgamated hromada groups) for integrated development using available resources and natural competitive advantages of the areas;
– stimulating the creation and renewal of communication and transport infrastructure;
– involvement of business entities of other regions to create interregional cooperation;
– expert assessment of the state and trends of scientific and technical achievements in combination with marketing forecasting of changes in consumer demand;
– improving the quality of material resources used in production;
– structural transformation of production complexes to increase the volume of competitive products, reduce energy consumption and material costs;
– creation of regional and interregional economic alliances between enterprises and local governments to increase the competitiveness of regions;
– synchronization of the activities of territorial authorities, local governments and public institutions in motivating innovations and increasing the competitive advantages of the regions;
– concluding agreements between higher education institutions, research institutions and industrial companies to stimulate the fulfilment of orders to be used in industrial production.

An additional mechanism for enhancing competitive advantage is the inclusion of local producers of products or services in the global chain of multinational companies while considering the threat of significant dependence on foreign markets.

About regions that focus on the development of demographic potential, the primary mechanisms for the development of these regions can be the following:

– identification of trends in demand for the profession, the need for qualified personnel, the development of staffing plans;
– support of small enterprises based on production cooperation with leading business structures of the regional level;
– diversification of financial support of economic activity through subsidies of research and development in priority areas at the regional level, increasing the motivation to invest in scientific and practical results;
– raising the level of qualification of labour resources, first of all with engineering, production or design skills;
– improvement of living conditions, subsidizing at the expense of the local budget part of mortgage loans to young people in the region;
– active privatization of non-residential areas for sale for construction for cheap property, which will be sold exclusively to residents of the region;
– active financing of the social sphere (hospitals, schools, kindergartens, sports grounds, etc.).

Strategically oriented agricultural regions, and especially Amalgamated hromada with a centre in villages and their groups, in our opinion, should use the following additional mechanisms:

– strengthening the efficiency and intensification of innovation and investment activities to ensure resource-efficient and environmentally friendly production (primarily for the formation of export supply);
– financial incentives for intersectoral integration of agro-industrial production and scientific organizations;
– formation of processing capacities near agricultural areas for production and sale not of semi-finished products, but finished products;
– increasing the amount of funding for scientific and practical developments in the agricultural sector to increase the level of high-tech industry and competitiveness of enterprises and the region.

For example, we give the structure of exports from Ukraine (Figure 6).

According to Figure 6, A third of exports (36.8%) are products of the agricultural sector of the economy, and another 10% are products of the extractive industry, which are sent for export.

And given the growing demand for food in world markets and growing demand for organic products in the EU and other countries, agricultural exports to the regions can be a beneficial factor in increasing the competitiveness of Amalgamated hromada among other areas.

Consider the mechanisms for increasing the competitiveness of regions that focus on infrastructure development:

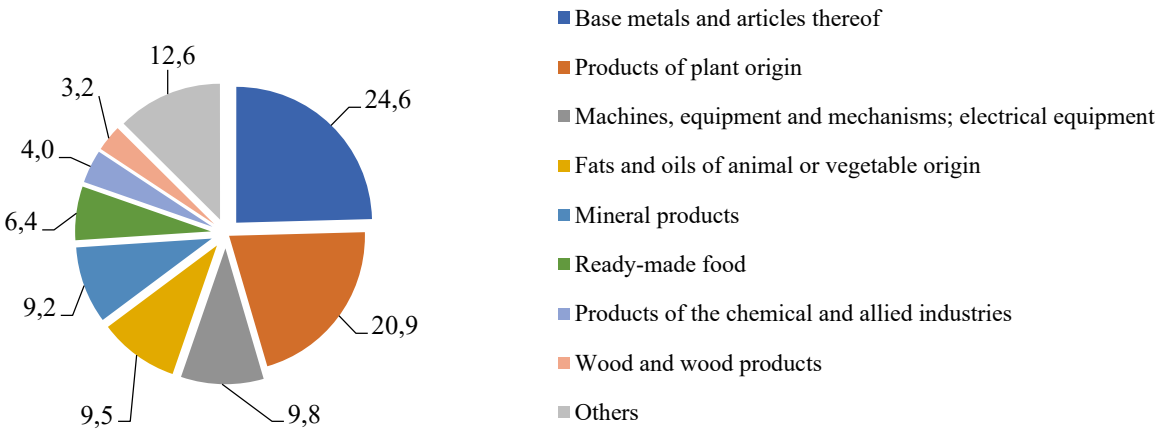

Figure 6. Structure of exports from Ukraine in 2018, %

Source: compiled by the author on the basis (Tovarna struktura zovnishnoi torhivli, 2018)

– use of mechanisms for implementation of programs and projects through the State Fund for Regional Development and creation of a system of transparent selection and evaluation of projects for state support of infrastructure projects;
– formation of regional transport and logistics clusters, including warehousing for the transit of goods through Ukraine;
– joint financing of institutional infrastructure projects at the expense of financial resources of EU funds and national institutions;
– carrying out technological re-equipment and diversification of production, products (goods) based on new technologies;
– formation and effective use of transport and logistics potential (including Lviv region) to promote domestic, regional products on the world and interregional markets.

The implementation of mechanisms must include at least two components: financial, economic and organizational. The financial and economic component in increasing the region's competitiveness should stimulate the implementation of tasks to ensure the timely finding of financial resources and differentiation of sources for the performance of priority mechanisms to increase the region's competitiveness in terms of changing competencies.

The organizational component should include the development and implementation of tools, creating incentives for business development, which will allow the development of products that form the region's innovative potential.

All measures include synchronization of actions of local authorities, public organizations, business to ensure mechanisms for implementing strategic development programs based on analytical research and monitoring in the context of adaptation to global challenges, the need to implement the Association Agreement between Ukraine and the EU.

Turning to monitor, it should be noted that the periodicity of reviewing the effectiveness of mechanisms to increase the competitiveness of the region should be carried out following the budget process of the part or Amalgamated hromada, for example, annually, and in case of inefficiency, inconsistency or bias, strategic development priority and competitive priority area to which special attention should be paid.

5. Assessment of development priorities of Trostyanets city Amalgamated hromada

Let's consider using strategic planning mechanisms and determining the priorities of the region's development on the example of the Trostyanets city united territorial community.

Given the fact that Trostyanets Amalgamated hromada has a population of almost 22 thousand people, and the community budget for two years (2017–2018) has quadrupled – to nearly 200 million hryvnias, including increased development budget, the community sent funds for the construction and renovation of parks, hospitals, schools, sports facilities, etc. Thus, there is a community orientation on demographic specialization. It is worth noting that according to the long-term plan, 11 more village councils are to join the community, which will increase both the number of residents and the objects of taxation, as well as funding from the budget.

A concrete example of the development of human potential as a competitive feature is that in the village of Kamyanka, Amalgamated hromada repaired roads, bought buses, and were allowed into the town. These measures were implemented for the first time in the last 12 years.

Trostyanets, as the centre of Amalgamated hromada, aims to continue within the strategy of Amalgamated hromada development, to develop the following priorities:

– working places;
– investments;
– infrastructure development;
– tourism.

In 2018, the Amalgamated hromada "Card of a resident of Trostyanets city Amalgamated hromada" began to operate, allowing select categories of citizens to travel free of charge on public transport in the city. Local readers have unique readers for such cards. Cardholders are served in the public library on an emergency basis, and they also receive a discount in one of the city's pharmacy chains. The purpose of introducing this card is, in particular, transparent accounting and optimization of budget expenditures allocated for social purposes.

The Trostyanets community uses the Open City platform so that utilities can quickly learn about faults in the city and respond accordingly. With its help, residents can indicate on the map the place where the problem occurred. The Open City system was created as a platform for the whole of Ukraine. The community pays 35,000 hryvnias a year to the Association of Open Cities, supporting various electronic services.

As for the infrastructure, during the operation of Amalgamated hromada, in the city: modernized communal infrastructure and installed energy-saving technologies; by 2018, all apartment buildings in the city were converted to individual heating; all roofs of the housing stock are repaired; communications have been replaced in the entrances, and intelligent lighting systems that respond to traffic have been installed; pumps and automatic water supply systems have been installed in all water intake facilities of the city. Now wells from the wells enter the network directly, bypassing the water towers, mostly clogged.

Most city yards do not have garbage containers. The garbage truck arrives on a precise schedule, beeps, and residents take out the garbage. People decided that such a system was more convenient for them. 98% of residents have concluded contracts for a garbage removal. After the unification, the community began removing garbage from villages at the city rate.

During its work, the community received funding for about 20 projects: an inclusive playground, restoration of architectural monuments, creation of an educational centre, etc.

These infrastructural measures are aimed primarily at improving the social component of the city. Therefore the statement about the Strategic Priority of Demographic Development of Trostyanets Amalgamated hromada has found additional confirmation.

As for the economic component, it should be noted that since 1994 the chocolate factory "Ukraine" (located in Trostyanets) has become part of the international corporation Kraft Foods (since 2012, the company is called Mondelēz International). The factory performs a complete cycle of cocoa bean processing. The company employs more than 1,000 people.

The company was actively invested: in 2012–2018 in the amount of about $ 200 million investment. People from other villages and settlements of Amalgamated hromada go to work at the factory. A significant number of employees and a large manufacturer allows filling local budgets with large enough amounts of funds, which are redirected, including for the renovation of Amalgamated hromada medical facilities.

At the beginning of 2018, and primary care facilities, the Trostyanets community, took over the district hospital, which serves almost 40,000 patients. For six months, significant repairs were made in the therapeutic department, gynaecological and maternity departments. By 2022, the community plans to complete renovations throughout the hospital:

Wi-Fi systems are installed all over the floor. There is video surveillance as a nurse so she can see what is happening in the corridor. There are call buttons next to each bed. The beds are adjusted to the needs of each patient. Each room has a TV set, a refrigerator, a washbasin, a toilet and a shower.

About two million were worth repairing the therapeutic department and about a million – equipment. This is all – exclusively community funds.

A large part of the community budget goes to education. In addition to maintaining schools and kindergartens, Trostyanets invests in the repair of classrooms, new equipment and software:

Schools that have joined the community have not previously been involved in energy saving, have no multimedia equipment, and so on. In 2018, 13 classes were repaired at the expense of Amalgamated hromada budget funds.

In 2018, a renewed public library was opened in Trostyanets on City Day. In addition to the reading room, the library has a coworking centre, communication rooms, a multimedia hall-transformer for events, a children's area.

In the summer of 2018, an inclusive resource centre for children with disabilities opened in Trostyanets. The institution provides psychological and pedagogical assistance to children, as well as promotes their social adaptation.

Sports and tourism are actively developing in Amalgamated hromada (Trostianetska hromada).

Trostyanets' quarries are an additional source of Amalgamated hromad's budget and are actively used to supply the region's construction projects with sand and clay.

In general, we summarize that the strategic priority of Trostyanets Amalgamated hromada, which is reflected in the Development Strategy of Trostyanets Amalgamated hromada, is to develop a human reserve and encourage the immigration of residents of surrounding villages to the region.

At the same time, in the strategic document of the regional level, among the shortcomings, it is worth emphasizing that there is a justification of the main directions and accumulation of recommendations without detailed interpretation and development of tactical plans to achieve goals, as well as lack of identification of resources.

The implementation of such documents may be hindered by the political instability of the country, insufficient funding (for example, Trostyanets Amalgamated hromada is not sufficiently outlined, as it is united around the city, but rural communities are less protected from scarce trends), limited stakeholder participation, the shadow sector. Economy, which complicates their implementation.

6. Conclusions

The need to improve the institutional and economic mechanisms to ensure the competitiveness of regions in the context of decentralization reform is due to both the slowdown of the reform itself and the lack of significant experience of community leaders in implementing such reforms.

Algorithm for determining the strategic priorities of the region's development and implementation of mechanisms to ensure their competitiveness, the phased implementation of which will simplify and systematize the bureaucratic element of identifying strategic priorities. This algorithm is based on the need for Amalgamated hromada leaders to understand the importance of strategic priorities. In the case of a formal approach, this algorithm will not be effective at a sufficient level.

It should be noted that the strategic priority should be based on the potential of both resource and demographic and financial. Attracting additional funding will reduce own costs, but will increase dependence on third parties, including the state. Sufficient resources will strengthen the strengths, and low stocks – will save almost all costs, which is relevant for rural Amalgamated hromada, away from important infrastructure or administrative facilities.

Inter-municipal support as a mechanism to increase the competitiveness of Ukrainian communities is actively developing, however, compared to the total number of functioning Amalgamated hromada, cooperation agreements between communities have been signed only about 60%, which indicates both the potential and low interest of communities in this mechanism.

In general, when setting strategic priorities, communities should realistically assess social, economic, political, infrastructural, demographic, and other components not only in retrospective analysis but also as development potential.

In conclusion, we note that the active position of the community in defining strategic priorities and clearly defining the mechanism for strengthening the competitive advantages of Amalgamated hromada will significantly improve the quality of life and, consequently, the attractiveness of the area for potential residents.

Increasing the population intensifies the development of the social sphere and the sphere of trade, which will increase revenues to the community budget. Thus, a clear vision of the community leadership of strategic guidelines allows the community to develop faster than before the reform.

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ANALYSIS OF GLOBAL INNOVATION ENVIRONMENTAL FACTORS OF INTERNATIONAL BUSINESS AND ECONOMIES

Victoria Kokorina[1]

Abstract. *The purpose* of the paper is to identify and assess impact of global innovation factors of modern international business development and the world economies development. *Methodology*. The study uses methods of specification and systematic analysis – to determine factors of global economic environment, global innovation factors, statistical and economic methods – to analyze impact of global innovation factors on the development of international business and economies. *Results* of the survey shows impact of innovation development of global economy on macroeconomic, technological, legal, political and cultural environment of global economic environment of international business development; dynamics of global criteria of integrated indicators to determine impact of global innovation factors on the world economies development. *Practical implications*. The factors of global economic environment in the conditions of global innovation development form a regular tendency of transformation of international business development which causes its new structure and qualitative condition. The Global Competitiveness Index (GCI) assesses the imperatives of global competitiveness: institutions, infrastructure, ICT adoption, macroeconomic stability, health, skills, product market, labor market, financial system, market size, business dynamism, innovation capability, – related to rapid spread of ICT and digital technologies, idea generation, entrepreneurial culture, innovation, openness and innovation adaptability. The Global Innovation Index (GII) is used to assess comprehensively global innovation factors and innovation development of the world`s countries in the global economy system. With innovation factors manage-ment, estimated by GII, the prospects of innovation development of the world econ-omies could be shown. The GII contains the pillars of the country's innovation de-velopment: institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, creative outputs. *Value/originality*. The analysis assesses of international indices of innovation development, the complexity of innovation process, the innovation activity and innovation potential for the development of international business and the world economies. The methodology of indices concerning the pillars of the innovation development or the innovation capacity of countries helps to predict the innovation factors of the national economy development of a country and the environment of international business.

Key words: global innovation factors, international business, global economic envi-ronment, Global Innovation Index, innovation capacity.

JEL Classification: F23, F64, O31, O57

1. Introduction

The study of the content of scientific and technological progress determines it as a catalyst for technological changes and a factor of economic growth. As well as, within rapid globalization development and instability of global economy the technological progress is a key factor in international business relations, economies through innovation adoption in manufacturing and other areas. Thus, an innovation model of the stakeholders of global economy is formed. The driving forces of the global economic environment are human, intellectual capital and knowledge amount.

Trends in development of global economic environment are to be formulated to understand the progress of entire system of international economic relations. Overall, the main trends in evolution and growth of global economic environment based on its components development can be identified the following: the study of global economic environment through the globalism; the economic basis of global economic environment development is the global transition of states of society, i.e. the transformations (from one state of society to another, mostly more progressive); the global economic environment is

Corresponding author:
[1] Classic Private University, Ukraine.
E-mail: kokorinatori29@gmail.com
ORCID: https://orcid.org/0000-0001-6901-7837

to be understood as a set of economic development conditions; the main pillars (factors) of global economic environment formation are: the macroeconomic sub-environment, the technological sub-environment, the legal sub-environment, the political sub-environment, the cultural sub-environment; the adaptation of the stakeholders of international economic relations occurs through the activities of individuals.

Finally, the preconditions and trends in global economic environment are sys-temic. The pillars of global economic environment – from macroeconomic to cultural ones – determine the direction of integration of countries, enterprises, business and individuals into global economic environment in the globalism era.

2. Survey recent research

Theoretical and methodological issues of formation and development of global innovation environment, its conditions and factors are discovered in works by O. Belarus, D. Lukyanenko, Z. Lutsyshyn, V. Novytskyi, Eu. Panchenko, Y. Pakhomov, A. Poruchnyk, S. Sokolenko, Eu. Savelyev, V. Savchuk, A. Filipenko, I. Shkola, and others. The process of international business development in the global economic system, in particular within the innovation and information globalism and the global innovation competition, is studied by: Eu. Avdokushyn, K. Aswazappa, I. Degtyareva, D. Johnson, S. Paulson, S. Robock, K. Simmonds, K. Turner, L. Timashova, W. Tomlinson, M. Warner, O. Shvydanenko, and others. However, the objective further research of innovation factors of economic development in globalization is still urgent, primarily in the areas of identifying priority innovation pillars of the innovation development strategies of international businesses, countries and formation of the national innovation systems in the global innovation competition paradigm.

3. The global innovation competition as a paradigm of modern environment of international business and economies development

At the end of the XX – beginning of the XXI century an integral part, a global paradigm of modern model of economic development of enterprises, business, sectors, national economies the following phenomena and processes became: an innovation, innovation activity, innovation potential and innovation capacity. They are the complex economic categories. Globalization of the world economy, its innovation way of development is a decisive factor that determines business efficiency, stability and competitiveness of economies in foreign markets (Kniazevych, 2013). Simultaneously, the need to mitigate the contradictions of globalization necessitates the constructive interaction of stakeholders of global economy. These stakeholders carry out innovation activities and have innovation potential, within the integrative model of competitive behavior.

In globalization of the world economy the global innovation competition has been formed. It determines new forms of competitive relations of innovation activity of international business and countries in the world. This process requires them to a certain level of innovation capacity. Thus, the features of the global innovation competition can be considered: (1) the innovation determinism of the competitive process components; (2) the acquisition of global competition; (3) the institutionalization of competitive interaction; (4) the competition as a non-conflicting form of competitive relations; (5) an integrative model of competitive behavior; (6) common goals of the competitors (2016); (7) the state innovation support policy concerning the innovation potential of economic entities and industries.

4. Innovation factors of global economic environment of international business

A «global environment» is defined as «a set of the economic conditions for development: entrepreneurial and business life» (Ostapenko, 2019). The economic conditions are formed in the global economic development system. The peculiarities of the global economic environment development determine the efficiency and productivity of the stakeholders of international economic relations.

At present the cyclical development of global economy and its innovation ele-ments transforms the global economic development. Models of global economic growth are based on innovation factors. The shift in the role of innovation factors is due to a change in paradigms (system of views on a phenomenon, based on a key element) as technological, technical-economic, techno-socio-economic and neo-institutional one.

Therefore, we have a global innovation development of world civilization, determined by the dominance of the fifth technological mode. The basis of the mode is microelectronics and software; technological set of electronic components and devices, electronic computers, radio and telecommunications equipment, laser equipment, computer maintenance services (Matjushenko, 2017).

The formation and growth of the sixth mode will form the global innovation development next two to three decades. It was the transition to a new technological mode that formed the basis for a new industrial revolution.

A new, Fourth, industrial revolution came through: (1) the solution of mankind global problems;

(2) increase labor productivity; (3) the creation of new goods and services.

The factors of the shaping global economic environment in the global innova-tion development are worthily to be singled out (Table 1). They depend on the cyclical development of world economy, in particular its innovation component.

The next condition for the shaping of global economic environment can be considered a nano-economics and the elements of nano-economics system. Nano-economics is determined by the nature of its object – an individual – in the system of economic objects.

Thus, the scientist G. Kleiner defines the task of nano-economics is «to ex-plain and predict human economic behavior, to determine internal and external determinants and factors of its behavior in various economic situations, particularly in terms of rationality / irrationality» (Kleiner, 2004).

Through nano-economics, the identification of the impact of individuals activi-ties on the behavior of microeconomic objects – the enterprises, households, organi-zations, and the detection of the internal and external factors of customer behavior becomes possible (Ostapenko, 2019).

Thus, first of all, the global innovation development affects macroeconomic, technological and legal sub-environment of global economic environment, together, the nano-economics system affects mostly the political and the cultural sub-environment, where the role of the individual is decisive.

5. Global innovation factors of economic development of the countries

To define and compare innovation development and innovation activity of the countries and sectors of the national economies, researchers use global criteria and form integrated (composite) indicators (indices). They objectively determine the innovation capacity of comparable countries and global innovation factors of the economic development of these countries. Simultaneously, the innovation de-velopment indices based on criteria help to compare the opportunities and prospects of the national development in current society, and also become key innovation factors in a favorable environment for international business.

Since the innovation capacity and the technological readiness are integral components of the competitiveness of the national economy, the use of the methodology of the World Economic Forum, Davos, to calculate the Global Com-petitiveness Index (GCI) is expedient. The methodology tracks the dynamics of global economy in the Fourth Industrial Revolution and focuses on new competitiveness factors related to the rapid spread of digital technologies that were not priority for governance, i.e. idea generation, entrepreneurship, innovation, openness and adaptability.

Thus, in 2019 GCI estimates 141 countries, which produce 99% of world GDP, by 103 components (indicators/factors). The indicators detail the competitiveness of the countries at different stages of their economic development. The WEF Global Competitiveness Reports of 2018 and 2019 integrates the indicators into 12 groups of global competitiveness imperatives (pillars): (1) «Institutions»; (2) «Infrastructure»; (3) «ICT adoption»; (4) «Macroeconomic stability»; (5) «Health»; (6) «Skills»; (7) «Product market»; (8) «Labour market»; (9) «Financial system»; (10) «Market size»; (11) «Business dynamism»; (12) «Innovation capability». Herewith, the 12 pillars are combined into four groups of factors of global competitiveness in the Fourth Industrial Revolution:

1) Enabling Environment (1-4 pillars);
2) Human Capital (5-6 pillars);
3) Markets (7-10 pillars);
4) Innovation Ecosystem (11-12 pillars).

Table 1

The main factors of global economic environment

Factors	Contents of display component
Macroeconomic sub-environment	The macroeconomic preconditions for business development, when the form-ing economic relations at the national economy level determines whether the activities of individual enterprises in the country will be effective. The sub-environment formed by the determinants of the competitiveness of the nation-al economy (M. Porter's «national diamond») covers all categories of macroe-conomic development – enterprises, as well as public authorities.
Technological sub-environment	Forming the international innovation activity – from the use of foreign tech-nologies to the creation of production facilities based on national technologi-cal solutions.
Legal sub-environment	The harmonization of internal legislation based on the use of international norms and principles, especially regarding the foreign economic activity in accordance with the norms of international economic law.
Political sub-environment	The conditions when the interaction of power, economy and business is. Such intertwining determines the possibilities of business autonomy from power. Meanwhile, the state is expected to participate in the regulatory activities of the authorities into creating an optimal environment for developing business structures.
Cultural sub-environment	A combination of demographic and psychological aspects of global environ-ment. Leveling business stereotypes, forming a global consumer and unifying needs and values, both cultural and material one.

Source: by the author based (Ostapenko, 2019; Vdovenko, 2017)

The WEF research of the Global Competitiveness Index in 2017–2019 (The Global Competitiveness Report 2017–2018, 2018, 2019) shows the key factors in the development of the competitiveness of the world economies. They are a set of institutions, state policy and productivity factors. Table 2 presents the top-ten countries in the world by the level of GCI in 2017–2019. Note, that in 2018–2019 by GCI the top-ten countries are permanent. Denmark also strengthened its position, rising from 12th to 10th rank in 2018. The first and second place in 2018 and 2019 are taken by Singapore and the United States, which in 2019 have 83.7 scores. That is 2.2% lower than in the previous year. This is the biggest decline of the Index among the compared countries. Hong Kong has the largest advance in the ranking – the third place (83.1 scores) in 2019 against the sixth and seventh ranks in 2017 and 2018, respectively, and the biggest decline in the ranking is Germany – the seventh place (81.8 scores) in 2019 against the fifth and third places in 2017 and 2018, respectively. We emphasize the loss of the leading of Switzerland in 2017 to the fifth rank (82.3 scores).

The dynamics of global competitiveness factors and the GCI pillars by regions of the world economy are presented in Figure 1. Thus, in 2018-2019 there is a maximum growth of «ICT adoption» in all regions of the world. The largest increase is in Latin America and the Caribbean and Sub-Saharan Africa – by 9.8% and 15.8% respectively. Conversely, by the pillars of the group of Markets factors «Product market» there is a decline in all regions except the Middle East and North Africa – 2.7%.

Note, that in 2019 by region the highest points in the groups of factors of global competitiveness have the following components of GCI:

I. Enabling Environment pillars – «Macroeconomic stability» (89.6 and 92.6 scores in East Asia and the Pacific, Europe and North America respectively).

II. Human Capital pillars – «Health» (83.8 and 89.1 scores in East Asia and the Pacific, Europe and North America, respectively).

III. Markets pillars – «Financial system» (70.9 and 74.3 scores in Europe, North America, East Asia and the Pacific, respectively).

IV. Innovation Ecosystem pillars – «Business dynamism» (66.1 and 68.3 scores in East Asia and the Pacific, Europe and North America, respectively).

One notes that the component «ICT adoption» has the lowest impact on the competitiveness of South Asia and Sub-Saharan Africa countries – 35.1 and 34.3 scores, respectively.

The integrated Global Innovation Index (GII) is used to comprehensively as-sess the global innovation factors and innovation development of the countries in global economy. The Index is calculated by the analytical center of the Lausanne School of Business (INSEAD). GII takes the first rank among other innovation per-formance indices and has become a control indicator for establishing dialogue be-tween the private and public sectors. The index allows assessing the factors of the country's innovation activity.

Finally, the analysis of GII results contributes to the creation of an environment where the innovation factors are constantly to be assessed. That allows timely adjusting and improving the state policy in the area of innovation (Ghurova, 2016). On the basis of innovation factors management estimated by GII, the prospects of innovation development of national economies of the world are shown.

The Index assesses the rating of countries concerning creating a favorable environment for

Table 2
The Global Competitiveness Index ranking, by the top-ten countries in 2017–2019

Country/Economy[1]	Years			Deviation 2019/2018, % (+/-)
	2017 (137 countries)	2018 (140 countries)	2019 (141 countries)	
Singapore	5.71[2] (3)[3]	83.5[4] (2)	84.8 (1)	1.6 (+1)
United States	5.85 (2)	85.6 (1)	83.7 (2)	-2.2 (-1)
Hong Kong SAR	5.53 (6)	82.3 (7)	83.1 (3)	1.0 (+4)
Netherlands	5.66 (4)	82.4 (6)	82.4 (4)	0 (+2)
Switzerland	5.86 (1)	82.6 (4)	82.3 (5)	-0.4 (-1)
Japan	5.49 (9)	82.5 (5)	82.3 (6)	-0.2 (-1)
Germany	5.65 (5)	82.8 (3)	81.8 (7)	-1.2 (-4)
Sweden	5.52 (7)	81.7 (9)	81.2 (8)	-0.6 (+1)
United Kingdom	5.51 (8)	82.0 (8)	81.2 (9)	-1.0 (-1)
Denmark	5.39 (12)	80.6 (10)	81.2 (10)	0.7 (0)

Note. [1] Ranking of the countries in 2019. [2] The index rate. [3] Rank of the country. [4] In 2018 the limits of the GCI rate were changed from 0-7 scores to 0-100 scores.

Source: The Global Competitiveness Report 2017–2018, 2018, 2019

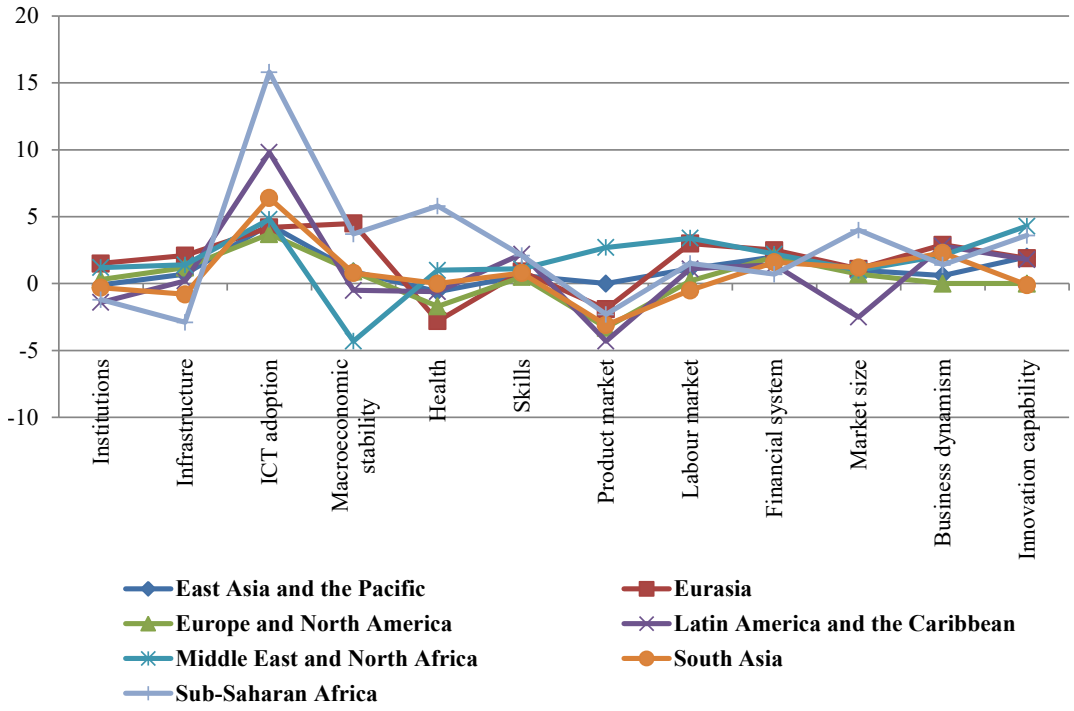

Figure 1. Dynamics of the Global Competitiveness Index by groups of components, by region in 2018–2019, %

Source: The Global Competitiveness Report 2018, 2019

innovation and obtaining innovation outputs. The metodology of GII determines indices of factors, which are the preconditions and the innovation outputs. Thus, GII contains 7 pillars (indices), grouped into Innovation Input sub-indices: (1) «Institutions»; (2) «Human capital & research»; (3) «Infrastructure»; (4) «Market sophistication»; (5) «Business sophistication», and Innovation Output sub-indices: (6) «Knowledge & technology outputs»; (7) «Creative outputs». A composite GII reflects the cost-effectiveness ratio to objectively assess the effectiveness of innovation efforts in the country. Thus, the results of the ranking of countries in the world by the Global Innovation Index (Table 3) show Switzerland and Sweden the leaders in 2017–2019. While, in 2018 they take the third rank. Note, among the ten leaders of the GII rating, the largest index increase in 2019 compared to 2017 has only the United States – by 1.3%. The United States rise by three ranks – from sixth to third place. The Netherlands has the largest fall – by 7.2% to fifth place in the ranking.

Despite the Index fall in 2019 compared to 2017, Sweden, Denmark and South Korea improve their places by one rank and two ranks, respectively. Note, in 2019 South Korea joints the top-ten most

Table 3

The Global Innovation Index ranking, by the top-ten countries in 2017–2019

Country/Economy[1]	Years			Deviation 2019/2017, % (+/-)
	2017	2018	2019	
Switzerland	68.40[2] (1)[3]	67.24 (1)	66.08 (1)	-3.4 (0)
Sweden	63.08 (3)	63.65 (2)	62.47 (2)	-1.0 (+1)
United States of America	59.81 (6)	61.73 (7)	60.56 (3)	1.3 (+3)
United Kingdom	60.13 (4)	61.30 (5)	59.78 (4)	-0.6 (0)
Netherlands	63.32 (2)	61.44 (4)	58.76 (5)	-7.2 (-3)
Denmark	58.39 (8)	58.44 (7)	57.53 (6)	-1.5 (+2)
Finland	59.63 (7)	59.83 (6)	57.02 (7)	-4.4 (0)
Singapore	59.83 (5)	58.37 (8)	56.61 (8)	-5.4 (-3)
Germany	58.03 (9)	58.19 (9)	56.55 (9)	-2.6 (0)
Republic of Korea	56.63 (12)	56.55 (11)	56.11 (10)	-0.9 (+2)

Note. [1] Ranking of the countries in 2019. [2] The index rate. [3] Rank of the country.

Source: Global Innovation Index 2018, 2019, 2020

innovation countries in the world with the GII of 56.11 scores.

The dynamics of the share of GII pillars by the countries that topped the rank-ing is presented in Figure 2. Thus, in 2018–2019 the maximum thrice increase of the share of «Human capital & research» is in Netherlands and «Business sophistication» is in Germany. The «Market sophistication» in Germany and South Korea, «Knowledge & technology outputs» in Netherlands and «Creative outputs» in Sweden, Netherlands, Finland and Germany have fallen by 50%. The shares of all GII indices do not change in 2018–2019 in Sweden and the United States. Note, Switzerland indices have milder fluctuations in the period.

Note, in 2019, the highest indicators of the GII sub-indices as global innova-tion factors by leading GII countries are following pillars:

I. Innovation Input Subindex pillars – «Institutions», «Human capital & research» and «Infrastructure» have the same shares of 20% in the United Kingdom, the Netherlands, Denmark and Finland. Also, Switzerland has the lowest 5% share of the sub-index in the top-ten ranking of GII.

II. Innovation Output Subindex pillars – «Knowledge & technology out-puts» and «Creative outputs» are for Switzerland (with 19% respectively).

We should emphasize that there is a low share of Innovation Output Subindex pillars, i.e. the innovation outputs (5%) in most top-ten countries in the GII ranking.

6. Conclusions

The analysis of global criteria of composite indices assesses the impact of general global innovation factors of economic development. The global innovation factors objectively determine the international innovation capacity of countries and the innovation vector of international business development.

The factors of global economic environment within the global innovation de-velopment form a natural trend of transformation of international business develop-ment leading to its new structure and quality. That ensures the priority of innova-tion.

The Global Competitiveness Index assesses the imperatives (pillars) of global competitiveness: institutions, infrastructure, ICT adoption, macro-economic stability, health, skills, product market, labor market, financial system, market size, business dynamism, innovation capability, – related to rapid spread of ICT and digital tech-nologies, idea generation, entrepreneurial culture, innovation, openness and innova-tion adaptability.

The Global Innovation Index (GII) is used to assess comprehensively global innovation factors and innovation development of the world`s countries in the global economy system. With innovation factors management, estimated by GII, the prospects of innovation development of the world economies could be shown. The GII contains the pillars of the country's innovation development: institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology

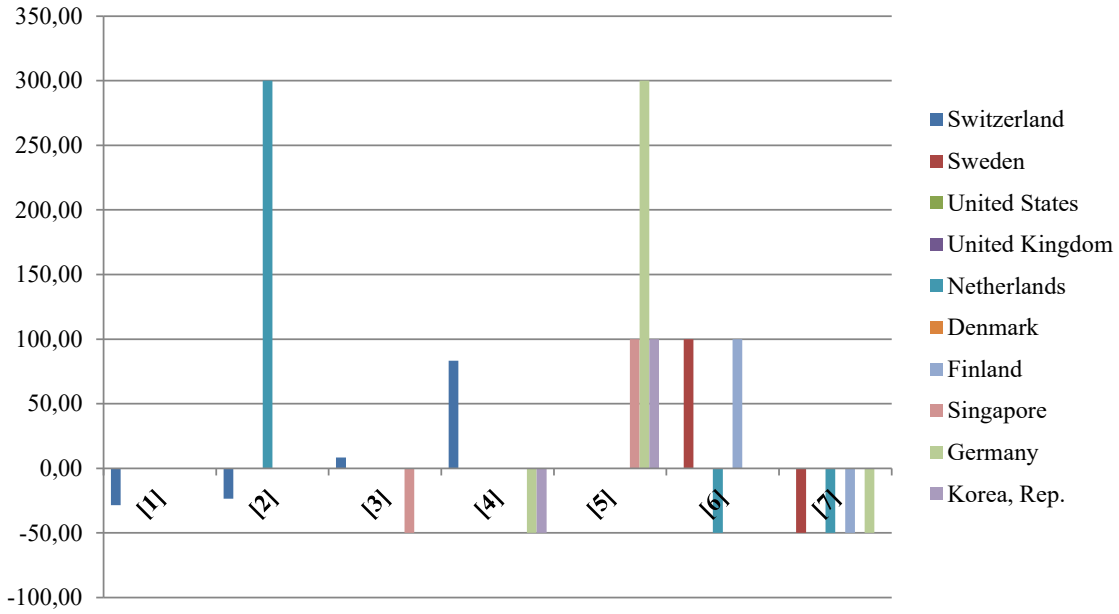

Figure 2. Dynamics of the Global Innovation Index in the top-ten countries in 2018–2019, by the share of pillars, %

Note: the GII pillars: [1] «Institutions»; [2] «Human capital & research»; [3] «Infrastructure»; [4] «Market sophistication»; [5] «Business sophistication»; [6] «Knowledge & technology outputs»; [7] «Creative outputs».

Source: Global Innovation Index 2019, 2020

outputs, creative outputs. The highest GII by leading countries are: the United Kingdom, Netherlands, Denmark and Finland – «Institutions», «Human capital and research», «Infrastructure»; Switzerland – «Knowledge and technology outputs» and «Creative outputs».

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STATE OF DEVELOPMENT OF TEACHERS' METHOD COMPETENCE IN FOREIGN COUNTRIES

Liudmyla Lyktey[1]

Abstract. In the review article the development trends of teachers' competence in the educational institutions from abroad are analyzed. Based on the scientific analysis of psychological, pedagogical and methodological research, the emphasis is put on the importance of the concept of «competence». The role of competence and its influence over methodical growth, improvement of teachers' professional qualities is defined. It was found that the multi-vector nature for the method competence improvement depends on the conditions of development of scientific and educational space. The necessity of borrowing European experience and continuous integration development of teachers' method competence in Ukrainian educational institutions taking into account the world a scientific and methodological thought is substantiated. It is proven that due to globalization social processes, competence in the foreign scientific and educational environment is rapidly transforming. Thus, the development issue of teachers method competence is relevant for our study, because the concept of «competence» is the subject of numerous scientific researches, meetings, conferences of domestic and international scientists in the European Union and beyond it. The issue of studying and borrowing international practices and world experience that would contribute to the full development of the domestic educational sector remains extremely important. To obtain a complete picture of the development of teachers' method competence, it is advisable to study the experience of foreign scientists and educational institutions from abroad, as well as clarification the essence of numerous methodological and pedagogical concepts. In the context of the study of this problem, we draw attention to the fact that the presentation of world best pedagogical experience, embodied in cooperation, study and promotion is not only relevant and important, but is also very necessary.

Key words: competence, method competence, methodological culture, methodological activity, methodical work, development.

JEL Classification: C18, F63

1. Introduction

Today, in times of intense educational change, Ukraine is making great efforts to get as close as possible to European educational standards. However, these efforts are accompanied not only by modernization and reformation processes of the Ukrainian educational sector, but they also require a highly educated and professionally pedagogical community. In accordance with the society's needs and demand, a number of new requirements are put forward to teachers of vocational pre-higher education institutions, because teachers are the driving force that forms human capital – a highly educated person. In view of this, an important teachers' task is to borrow world experience in combination with theoretical knowledge and their successful implementation in practice, which is a consequence of improving method competence.

The purpose of the study is to analyze the trends in the development of college teachers' method competence in the scientific and educational space from abroad. Based on the analysis, there is an aim to find out the importance of borrowing and implementing theoretical, methodological and practical experience in the educational sector of Ukraine.

In foreign and Ukrainian educational discourse, competence is studied mainly as an integral component of professional development and it is described from the perspective of theoretical, empirical, statistical, research methods based on the competence approach.

2. Presentation of main material

Nowadays the definition of trends in the development of teachers' method competence, particularly the

Corresponding author:
[1] Ivan Ziaziun Institute of Pedagogical Education and Adult Education of the National Academy of Pedagogical Sciences of Ukraine, Ukraine.
E-mail: L.liktej@ukr.net
ORCID: https://orcid.org/0000-0001-7348-4286

teachers of humanities from vocational pre-higher education institutions, is considered to be a priority adoption, which is implemented to develop Ukrainian education. The right choice of teaching strategy creates the conditions for a proper solution to the problem of the methodological competence development. In the research context of this problem, we pay attention that presentation of the world advanced pedagogical experience embodied in cooperation, studying and popularization acquires importance and necessity. The works of world-class scientists reflect a number of opinions about the teacher's personality, their competencies, in particular:

– the teacher's professional competitive ability (Yu. Liannoi, N. Demyanenko, I. Havrysh, etc.). (Liannoi, 2017; Demyanenko; Havrysh, 2006);

– readiness to realize own potential for successful productive activities in the social and professional spheres; awareness of the importance and personal responsibility for the results of their own activities, the need for its continuous improvement (Yu. Tatur) (Tatur, 2004);

– readiness for systematic transfer of knowledge, skills, abilities; acquisition of new ones (N. Kuzmina) (Kuzmina, 1990);

– readiness and ability to find alternative ways for development, improvement of skills of personality-oriented communication, on the basis of the transformational component of cultural and intercultural components (E. Taylor) (Tatur, 2004);

– possession of methodological tools for students' differentiated training, changes in their own methodological profile in order to improve themselves (D. Hargreaves) (Hargreaves, 2004);

– ability to self-organization in solving certain tasks of professional orientation, self-development, focused on knowledge, values, abilities, volitional decisions, etc (J. Erpenbeck, P. Heyse) (Avsheniuk, Desiatov, Diachenko, et al.).

On the road of the development of 21st century European education, in 2000 the European Commission approved the targeted program named «the Education and Training 2010» (The Lisbon Strategy), which provided for a fundamental modernization of European education system, including the transformation of education levels and elements. A lot of attention is paid on the issues of improving the education, development of the professional level of teachers and educators, who, according to this document, play a key role in restarting this project. Already in 2003, the European Commission together with the European University Association initiated the creation of a project called «Setting up educational structures», according to which the process of learning in higher education was aimed at ensuring the development of general competencies. The developers divided these competencies into three closely related groups: instrumental competencies, interpersonal competencies and systemic competencies, which are intended to form professional competencies as the highest results in European education.

Based on the actions carried out in 2005, the document «Common European Principles for Teacher Competences and Qualifications» was developed, which regulates the course of providing a single approach in order to define common criteria for pedagogical education in Europe. The document provides the main messages for the teacher: to work with others; using knowledge, information and technology; to work in society at the local, regional, national, European levels. In addition, a number of documents was developed that regulated the teachers' educational activities in the coming years. Soon later, in 2018, the Council of the European Union in its Recommendations identified the key competencies that would be needed for a person to be able to work, to realize oneself personally and develop in the period of rapid global change (Recommendations Council).

Studying the European educational experience, we pay attention to the work of Finnish researcher Olli Vesterinen, who analyzed a number of laws and regulations of European countries in order to promote the teaching profession and highlight the most important competencies of teachers, which he combined into five groups: pedagogical and psychological competence, interpersonal competence, special subject-oriented and methodological competence, organizational and intercultural competence. We correlate the proposed competencies of Olli Vesterinen with the concepts that interest us, in particular, methodological culture – Intercultural competence; methodical work and activity – special subject-oriented, pedagogical and psychological competence; methodical competence – methodical competency.

In their scientific works, foreign scientists T. Rudneva and N. Solovova consider the concept of «methodical work» somewhat more narrowly and concisely than the concept of «methodical activity», as they believe that methodical activity is an independent type of pedagogical professional activity of a teacher and involves the implementation of methodological recommendations, instructions, etc., and methodical work, according to scientists, is a pre-planned activity of the teacher, which simultaneously aims to improve existing forms, principles, methods of educational process and develop new (Rudneva, Solovova, 2012). Methodical work and methodical activity are inseparable components that establish the concept of "methodical culture" of the teacher.

In our opinion, Methodological culture is a phenomenon that does not diminish the importance of method competence and plays an important role in its development. Thus, N. Nikula interprets this concept as the teacher's ability to build their own

professional and pedagogical activities on the basis of psychological and pedagogical knowledge (Nikula, 2002). Complementing this scientist's opinion, L. Plekhanova defines methodological culture as a socio-professional characteristic, which is a reflection of a high level of pedagogical activity, methodically conscious use of pedagogical tools in teaching, creation and updating of new pedagogical values, etc. (Plekhanova, 2012).

Methodological culture, methodological activity, method competence, methodical accumulation and improvement of skills in order to carry out high-quality educational activity as well as borrowing of world experience have considerable influence over the development of the teacher's personality in a professional and methodological context which is directed on the systematic analysis of own pedagogical activity according to standards, which will be partially considered.

Today, the United States, the United Kingdom of Great Britain, the Federal Republic of Germany, Denmark and others are the leading world leaders in the field of education. In order to popularize the international pedagogical experience in Ukraine, domestic scientists and scholars cover a number of studies about education in foreign countries, because it is education that has always attracted attention.

Thus, the US experience shows that education can be the highest example of a decentralized education system with competent management, and higher education, however can be broad autonomy, assisted by the state. This is the main difference between education in the United States and Ukraine, as the accreditation of colleges, control by government institutions is voluntary (in Ukraine, such procedures are mandatory). Teachers and students freedom comes first. Higher education institutions, in particular colleges, are characterized by autonomy, diversity, flexibility, variability, commercialization, continuity, and so on. There are a number of requirements and criteria for the teachers' activity. However, the teacher is free to make management decisions, choosing methods, techniques and principles of teaching. Typically, the assessment of the activities of colleges and universities in the United States is based on the performance of the institution, candidates access to education, economic and financial activities, and the quality of teaching staff. Therefore, not only the quality of the teachers teaching activity, the availability of educational content developed by them, but also their scientific and publishing activity and their own scientific degree are assessed. The US education standards, requirements for teachers of educational institutions are very different from European ones; however, meet the requirements of the time and the needs of modern society. There is an intensive interaction of educational institutions with the labor market, and the issues of cooperation with stakeholders are becoming very important.

The educational experience of Great Britain shows that the professional standard in this country is developed on the basis of the competence approach. The model of professional competence is represented by a set of competencies, which, in our opinion, are closely related: cognitive competencies (formal and informal knowledge); functional competence (skills or know-how); personal competencies (behavioral competencies); meta-competencies (ability to cope with uncertainty, edifications and criticism); ethical competence (Avsheniuk, Desiatov, Diachenko, et al.). It should be noted that, unlike other countries, teaching at universities is not widespread here, but tutoring, which does not involve student training, but management and mentoring in the form of group discussions and individual consultations during which the student develops a number of professional skills and competencies. A tutor can be not only a mentor, but also a master teacher, a teacher-curator, a teacher-administrator, a teacher-concierge. This system of work requires a teacher with a high level of professional and qualified competencies. It also regulates the processes that affect his/her self-education and self-improvement, forms a teacher-innovator capable to think, to teach pragmatically and to be an integral part of the modern educational community. Unlike tutors, facilitators conduct seminars according to the courses chosen by the students. Such seminars involve a combination of theoretical and practical activities. On the basis of theoretical knowledge, teachers together with stakeholders develop practical tasks. This type of cooperation helps to coordinate the development of professional competencies of the teacher and future specialists.

The experience of raising the teachers professional level at universities and colleges of the United Kingdom of Great Britain (Wales) is interesting, as educational institutions with scientific, academic and pedagogical staff are responsible for the growth of professional competence. Most of them have their own research departments, centers and administrative departments, which take care of raising the teachers professional level. We consider the discussion with the teaching staff their individual personal needs to be a key remark for raising the teachers methodological level in this country. Using algorithms of teachers professional development, a university certification takes place, which plays the role of motivator. Professional development is increased annually, clearly according to the developed plans. The teaching staff takes responsibility for improving their own professional level and career growth, looks for new opportunities for development and improvement of competencies, determines their learning needs independently, taking into account the experience of certification. The Centre for Didactics in Higher Education of England provides considerable methodical help to teachers. Their task is

to organize courses, seminars, trainings, pedagogical and scientific meetings, etc., in order to promote the personal experiences of each teacher, since holding courses according to another teacher's recommendations or using developed textbooks is considered humiliating.

This practice also started working in Ukraine. The regulatory document that clearly prescribes this condition is the Resolution of the Cabinet of Ministers of Ukraine № 800 of 21.08.2019 «Some issues of professional development of pedagogical and scientific-pedagogical workers» with changes according to the Resolution of the Cabinet of Ministers № 1133 of 27.12.2019, where in p. 8 it is stated that the amount (duration) of professional development of pedagogical and scientifically pedagogical staff is set in hours and/or credits of the European Credit Transfer and Accumulation System (one ECTS credit – 30 hours per year) under the accumulative system. That is, within 5 years the college teacher raises his professional level and accumulates 5 ECTS credits (150 hours). The main types of advanced training are training in the in-service training program, including participation in seminars, workshops, trainings, webinars, master classes, etc. (Deiaki pytannia pidvyshchennia kvalifikatsii pedahohichnykh i naukovo-pedahohichnykh pratsivnykiv).

Analyzing the experience of Denmark, we see that in this highly developed country there are also a number of requirements for teaching staff, in particular, the teacher must be highly qualified (master, doctor), conduct an active research, participate in social and scientific projects, exchange experiences, daily improving the competencies. According to these criteria, teachers are divided into adjuncts (contract for 3 years), lecturers, associate professors, professors. An important aspect of the professional competence development of pedagogical staff is that at the state level the partnerships of higher pedagogical education institutions and schools are expanded and strengthened. It helps to improve the quality of work of both structures. For the stable systematic development of the teacher, the transition to continuous pedagogical education has been made (Roliak, 2010).

We also pay attention to the education system of Finland. In the last century, the main goal of the Finnish government was to reform the education sector on the basis of traditional education. The initial stages of the educational reform included specialized teacher training programs, which became an integral part of Finland's academic higher education. Education in such programs took place only in accredited universities. It gave a great impulse to the continuity of pedagogical education and lifelong learning. At the legislative level, the issue about the requirements for teaching staff at schools, colleges and universities was settled. Only a teacher with a master's degree can become an educational worker at school, a licensee or a doctor is needed at college, while only a doctor should work at university. At universities, the emphasis is put on training researchers in the fundamental and human sciences.

Obtainment of pedagogical education for specialists applying for the positions of teachers at colleges and universities is regulated by target competencies and qualification requirements. Teachers of vocational colleges and universities have a whole list of qualification requirements: a high level of professional competence, humanity, individualization and differentiation in training students, continuing educational development and more.

The tasks for the teacher set by the state is the ability to teach students how to think and act on the basis of theoretical knowledge and research, to justify pedagogical decisions with formal and systematic arguments, to use a practice-oriented component and so on (Avsheniuk, Desiatov, Diachenko, et al.). Such programs are reinforced by a number of competencies that are implemented through training in traditional, innovative, alternative, visual and practical methods. An important aspect of success is interactivity, which is the basis of Finnish education. According to K. Kotun, the main approaches to the implementation of continuous development are socio-cultural, resourcebased and professional, continuous analytical, legislative, competent, certified, innovative and ethno-national, liberal and civic (Kotun, 2020).

Properly chosen strategy and implementation of educational modernization processes in Finland has led to the emergence of the most successful educational system in Europe, which should be looked up to. In order to borrow and overspread this practice in the domestic educational space, in 2018 the State Standard of Primary Education was adopted, which is based on the education development through a competent approach. Already in 2019, a joint Ukrainian-Finnish project «Learning an together. Finnish project support NUSH. New Ukrainian School», which was implemented with the assistance of the company FCG International Ltd, and the University of Helsinki and the Ministry for Foreign Affairs of Finland. This project involved teachers, lecturers, principals, rectors, a number of educators, who in the future would act as trainers in educational institutions in order to qualitatively implement educational changes within a competent approach.

The work of the education sector of the Federal Republic of Germany is based on the Framework Law for Higher Education. The activities of educational institutions are detailed in so-called land laws «On teacher education». Requirements for teachers from higher education pedagogical institutions in Germany are extremely high. Every teacher in an educational institution must have fundamental competencies. According to the Germans, the most important

fundamental competencies are intellectual knowledge, which involves lifelong learning; educational competence that determines the ability to learn; method competence, which is aimed at improving language competence and mastering IT. At the same time social competencies are developed in order to establish social cohesion, the ability to work in a team, conflict resolution; valuable orientations that promote social, democratic and individual values (Kubenko, 2010).

It should be noted that every year social needs change, and the teachers' competencies in Germany assume a new significance and shade. Therefore, in connection with the world events of the last decade (military conflicts, social migration, etc.) in 2016 in some cities of Germany with the assistance of the Council of Europe the program designed to spread a culture of democracy, including in educational institutions, began to be actively implemented because from the German educators point of view, education is a long-term investment. Specialists working with the Council of Europe have developed three methodological volumes about the competencies and their implementation. The first manual contains a model of the most relevant competencies, which consists of twenty such examples. These competencies were divided into four areas – values, attitudes, skills, knowledge and critical understanding – and supplemented with information about the model bases, a process description of its development and ways for the future use. The second volume contains definitions about educational goals and outcomes for each of the competencies in particular. The third is advice about the use of the competency model in the educational space (Demyanenko).

Ukraine does not stay away from the modernization of the education sector. At the initial stage of implementation of NUS (New Ukrainian School) reforms, in cooperation with the European Education Fund, the program "Schools for Democracy: Supporting Education Reforms in Ukraine" was presented and a number of trainings «Development of Civil and Social Competences in the Teacher Training System in Ukraine», «Developing and Assessing competence in NUS: Framework of competences for democratic culture», etc. for trainers of the educational institution network in Ukraine and representatives of postgraduate pedagogical education institutions. Such a platform was launched to accelerate Ukraine's integration into European education standards. According to N. Avsheniuk research, it is the European educational system that forms the «European professionalism» of a teacher who must have a «European approach». In the field of his subject, he studies the core topics of the curriculum in the European perspective, exchanges the content and teaching methods his subject with colleagues from other European countries and at the same time pays attention to the ways of teaching and education traditions in different countries by learning them (Avsheniuk, Desiatov, Diachenko, et al.). The possibility of borrowing European pedagogical experience involves expanding and improving the method competence development of teachers of humanities at colleges with a focus on European professionalism and professional development.

In the psychological and pedagogical literature it is noted that «professional development» is a consequence of the formation and growth of professional knowledge, skills, abilities and personal qualities, i.e. competencies. It is a process when the teacher independently or together with his/her colleagues reviews, updates, expands his/her own responsibilities according to the teaching purpose, as well as he/she critically develops knowledge, skills, professional thinking, planning and practice of working with children, youth and colleagues at each stage of his/her professional life (Day, 1999).

3. Conclusions

Therefore, analyzing the world educational practice, we can conclude that an important issue is the method competence of teachers, although we consider not so much the method competence of the teacher as the ability to develop and improve it in a wide professional range. Emphasizing the scientific works of foreign researchers, we note that there is no such thing as «method competence». However, we often meet the concepts of «competence», «activity», «development», «culture» and so on.

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SYSTEM OF FINANCING HEALTH CARE IN THE EUROPEAN UNION COUNTRIES AS AN EXPERIENCE FOR UKRAINE

Olha Lisovska[1]

Abstract. *Purpose*. The purpose of the article is to analyse the state of the system of financing health care in the European Union countries and Ukraine, to identify and compare their efficiency. To achieve this purpose, the following tasks were set: to analyse the current state of the system of financing health care in the European Union using up-to-date statistics on health care expenditures; to analyse the state of the system of financing health care in Ukraine for the last five years based on statistical data on expenditures of the Consolidated Budget of Ukraine; to consider what needs the health care sector directs expenditures to; to identify the problems that were prompted medical reform in Ukraine; to identify and compare the efficiency of financing the health care system of the European Union countries and Ukraine. *Methodology*. During the preparation of the article, the author used the method of analysis and synthesis to review statistical data that provided an opportunity to analyse the current state of the system of financing health care in the European Union countries and Ukraine; the method of comparison was used to determine the efficiency of the models of the system of financing health care in the countries of the European Union, in order to further form useful advice for use in Ukraine during the period of medical reform; generalization method was used to summarize the results of the study. *Results*. Analysing the state of the system of financing health care among the European Union countries in 2019, it was found that the largest amount of health care expenditures was in Germany (the system of financing was based on the Bismarck model), and the smallest was in Latvia (the system of financing was based on the Beveridge model). Analysis of the dynamics of health care expenditures in Ukraine showed that over the past five years, the volume of expenditures has increased 2.33 times. In terms of the funds of the Consolidated Budget of Ukraine, the largest percentage (85-91%) falls on the expenditures of the general fund. In relation to the total expenditures of the Consolidated Budget of Ukraine, the share of health care expenditures in 2020 has amounted to 11.02%, which is 1.99% higher than in 2016. Despite the growing trend, the amount of budget expenditures is not enough for all the needs of the health sector. To identify the efficiency of the models of the systems of financing health care operating in the European Union countries and Ukraine, a comparison of the average life expectancy among the people of these countries was made. In the countries of Northern and Western Europe, there was the highest rate in the range of 81.1-83.1 years for both men and women; the lowest rate was observed in Ukraine (73 years). Ukraine is currently undergoing health care reform, which should change the Soviet model to one that will be closer to the English, which shows its efficiency on the example of European countries in the post-Soviet space. *Practical implications*. The results of the study can be used to form practical suggestions in preparation for the next stage of health care reform in Ukraine.

Key words: health insurance, health care system, health care models, health care expenditure, European Union, Ukraine.

JEL Classification: G22, G28, G32, I13

1. Introduction

The health of citizens has a significant impact on the economic development of the country, which directly depends on the state of financing health care. The system of financing health care, which has continued to operate in Ukraine after the collapse of the Soviet Union, has proven efficiency over the years. After all, due to insufficient funds to finance the industry, the right of citizens to free health care, medical assistance and health insurance, guaranteed by the Constitution

Corresponding author:
[1] University of the State Fiscal Service of Ukraine, Ukraine.
E-mail: olya.lisovskaya94@gmail.com
ORCID: https://orcid.org/0000-0002-2842-3158
ResearcherID: ABE-7161-2020

of Ukraine, was not realized. It should be noted that during the period from the declaration of independence in 1991 until the adoption of the Concept of Health Care Financing Reform in 2016, there was no significant reform in the field of health care in Ukraine.

In accordance with the Concept and a number of adopted regulations, since 2018 Ukraine has started health care reform, which aims to introduce compulsory health insurance, in which the state acts as an insurer, and funding is based on the principle of "money follows the patient". The implementation of the reform is provided in three stages and, according to the Concept, it should be completed in 2020, but the COVID-19 pandemic has changed the plans, thus extending the implementation of health care reform in the coming years. In the period of transformation of the domestic healthcare sector and the formation of an efficient system of financing it, it will be useful to use the experience of developed countries.

2. Analysis of the current state of financing health care in the European Union countries

In the countries of the European Union, health care systems are based on the Bismarck Model and the Beveridge Model. The Bismarck Model, also known as German model, is compulsory social health insurance for working peoples and their families. Contributions are paid to private insurance funds in the way that one part is paid by employers as targeted contributions and the other part is paid independently by employees. This model is used in Austria, Belgium, Italy, Estonia, Lithuania, Luxembourg, the Netherlands, Germany, Poland, Slovakia, Slovenia, Hungary, France, Sweden, the Czech Republic etc.

The Beveridge Model, also known as English model, means the universal coverage of medical services for all citizens at the expense of taxes paid to the budget. The state acts as a monopolist insurer with the authority to plan expenditures in the formation of the state budget and control their use. This model is used in Denmark, Ireland, Spain, Latvia, Portugal, Finland etc. (Kulesher, Forrestal, 2014; Wielechowski, Grzęda, 2020).

Let us analyse the amount of health care expenditures per capita in some countries of the European Union for 2019, the structure of which consists of:
– government / compulsory schemes;
– voluntary health care payment schemes;
– household out-of-pocket payments.

Figure 1 shows that the largest amount of health care expenditures is in Germany (6645.8 USD per capita), Austria (5851.1 USD per capita) and Sweden (5782.3 USD per capita), and the lowest is in Hungary (2222.4 USD per capita), Poland (2229.6 USD per capita) and Latvia (1972.6 USD per capita).

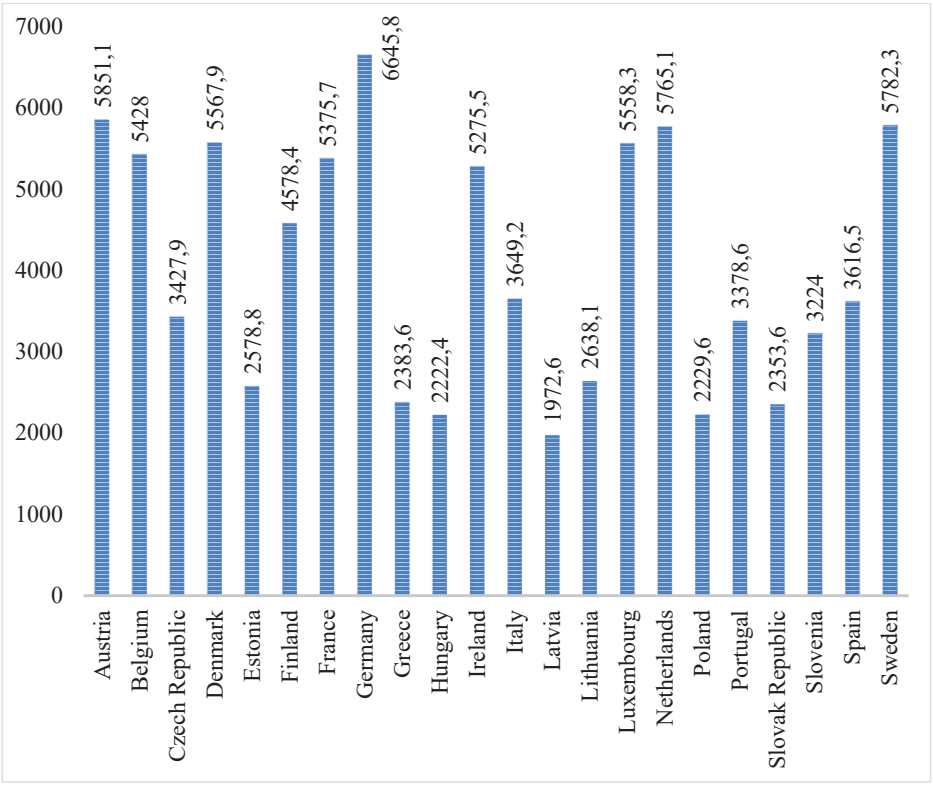

Figure 1. Health care expenditure per capita in the European Union countries in 2019, USD

Source: compiled by the author based on OECD statistics

This is due to economic differences between the countries of Northern and Western Europe, and the countries of Central and Eastern Europe, in terms of GDP, GNP, level of social security, wages, life expectancy etc. The average annual growth rate of health care expenditures per capita in 2019, compared to 2018, had a growing trend in all countries of the European Union (OECD/EU, 2020).

3. Analysis of the condition of financing health system care in Ukraine

After the collapse of the USSR, Ukraine inherited a health care system based on the Semashko Model, i.e. financing health care from the state budget, at the expense of which citizens were provided with free medical care (Onyshko, Shevchuk, 2019).

According to the budget classification, the expenditures of the Consolidated Budget of Ukraine for health care are directed to:

a) polyclinics and outpatient clinics, emergency medical services:
– general polyclinics and outpatient clinics;
– specialized clinics and dental care clinics;
– emergency medical care centres and medical centres for disasters, ambulance stations;
– medical and obstetrical stations;
– primary medical centres;

b) hospitals and sanatoriums:
– general hospitals;
– specialized hospitals and other specialized facilities;
– perinatal centres, maternity hospitals;
– sanatoriums;

c) sanitation and anti-epidemic measures and facilities;

d) basic and applied health care research and development;

e) other health care activities:
– orphanages;
– blood transfusion centres;
– other facilities and activities in the field of health care (The Official website of The State Treasury Service of Ukraine, 2021).

Let us analyse the dynamics of health care expenditures of the Consolidated Budget of Ukraine over the past five years. Figure 2 shows that the largest share falls on the general fund, which in percentage terms is 85%, 85%, 86%, 89%, and 91% for 2016, 2017, 2018, 2019, and 2020, respectively, and the expenditures of the special fund are 15%, 15 %, 14%, 11%, and 9% for 2016, 2017, 2018, 2019, and 2020, respectively. In comparison to 2016, in 2020 the volume of health care expenditures increased by 100.2 billion UAH (2.33 times).

The share of health care expenditures in relation to the total amount of expenditures of the Consolidated Budget of Ukraine amounted to 9.03% (2016), 9.69% (2017), 9.27% (2018), 9.36% (2019), 11.02% (2020) (Zvitnist, 2021). Although in 2020 the volume of health care expenditures has increased, but still this amount of expenditure is not enough to meet all the needs of the health care sector, so there is a need to find additional sources of income.

4. Efficiency of the systems of financing health care in the European Union countries and Ukraine

Inefficient allocation of budget funds for health care leads to a number of problems, namely:

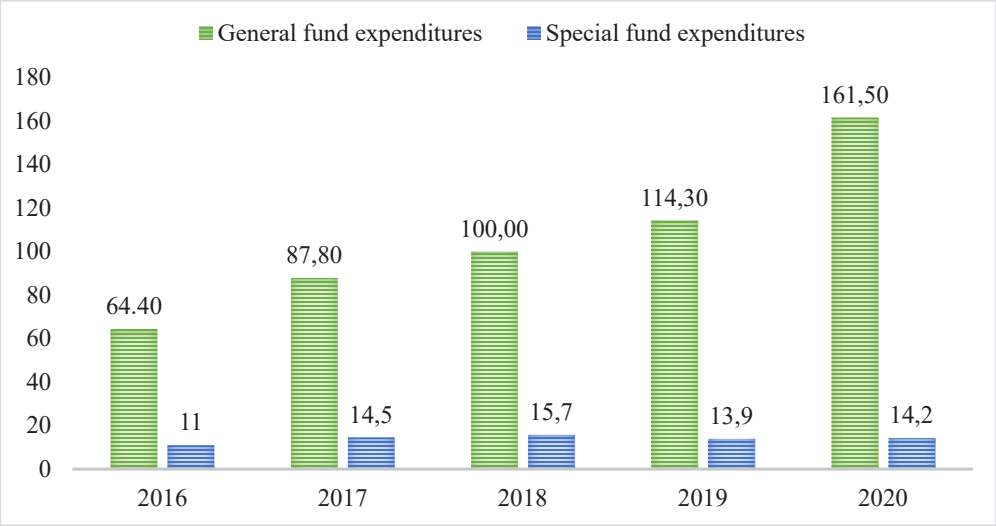

Figure 2. Dynamics of health care expenditures of the Consolidated Budget of Ukraine for 2016–2020, billion UAH

Source: compiled by the author based on the statistics of the State Treasury Service of Ukraine

– low coverage of the population with free medical services and, as a consequence, an increase in out-of-pocket payments;
– inequality in access to health care;
– low quality of medical services;
– reduction in qualification and number of medical personnel working in state medical facilities;
– increase in mortality due to preventive medicine is not available for the population, etc. (Apetroi et al., 2020).

The experience of the European Union countries confirms the efficiency of their systems of financing health care, although there is no universal system of financing health care in the world that would suit absolutely all countries. For example, in the period after the collapse of the Soviet Union and until 2015, the mortality rate in Ukraine increased by 8%, while in the post-Soviet European countries this figure decreased by 42%.

These problems prompted the Ukrainian authorities in 2016 to approve the Concept of Health Care Financing Reform and to begin health care reform in 2018, which aimed to change the Soviet model of financing health care to a more efficient one, which would be as similar as possible to the Beveridge Model, and to introduce compulsory health insurance (Romaniuk, Semigina, 2018).

The efficiency of the system of financing health care in the country can be seen from the indicator of life expectancy. Figure 3 shows that the highest life expectancy is in the countries of Northern and Western Europe, where the system of financing health care is based on the Bismarck Model. In the post-Soviet countries, which are currently members of the European Union, the average life expectancy is only 3-5 years higher than in Ukraine, although these countries have implemented their health care reforms much earlier.

In comparison to all countries of the European Union, the lowest life expectancy in Ukraine was 73 years in 2019 (for both sexes). In 2015, this figure was 72.2 years (WHO, 2020). This may indicate that the first stage of health reform has shown a small but positive trend.

5. Conclusion

In accordance with the purpose and objectives of the study, we can conclude that the analysis of health expenditures and life expectancy has confirmed that the most efficient systems of financing health care are those of Northern and Western European countries. The inefficient allocation of funds from the state budget, which was based on the Soviet model, led to a number of problems in the field of health care in Ukraine, which confirmed the inefficiency of this model. The

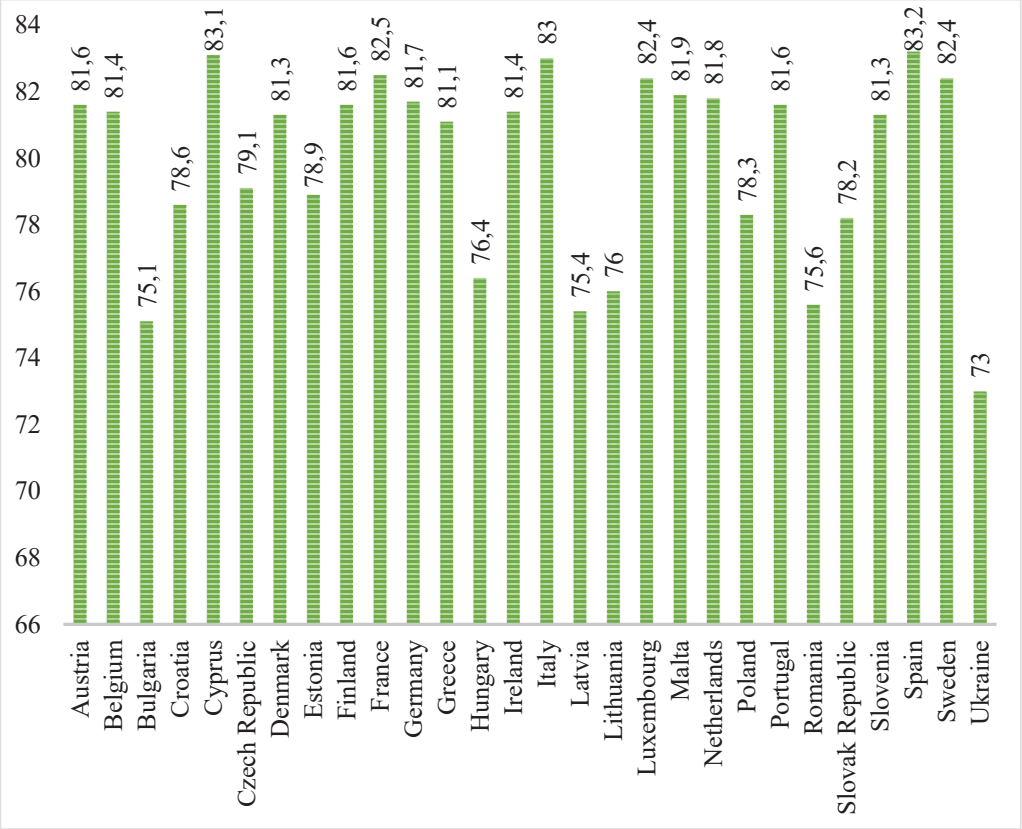

Figure 3. The average life expectancy in 2019 in the European Union countries and Ukraine, years

Source: compiled by the author based on WHO data

health care reform launched in 2018 aims to change the model of financing health care to one based on the Beveridge Model and to introduce compulsory health insurance, which is theoretically prescribed in the Law of Ukraine "On Insurance" from 1996; however, it does not exist to this day. The experience of the European Union, especially the post-Soviet countries, is useful and convincing for Ukraine during the period of transformation of its health care sector.

As the process of medical reform is underway in Ukraine, this topic remains relevant for further research.

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TRADE POLICY OF THE EUROPEAN UNION AND THE UNITED STATES OF AMERICA UNDER THE COVID-19 PANDEMIC

Viktoriya Mashkara-Choknadiy[1], Yuriy Mayboroda[2]

Abstract. The pandemic of COVID-19 has influenced all sectors of social life, including the global economy and trade relations. The year of 2020 was marked with significant changes in internal and foreign economic policy of almost all nations. The purpose of the paper is to study the measures taken by the EU and the USA as the world's leading economies to regulate their foreign trade in the global crisis caused by the COVID-19 pandemic. The tasks of the study are to show the influence of the crisis on changes of global trade policy in front of the threat to national security. *Methodology*. The study is based on the results of statistical analysis of data provided the WTO and the UNCTAD. The authors show an analytical assessment of the foreign trade indicators of the EU and the USA. Methods of comparison and generalization were used to formulate conclusions on regulatory trends in foreign trade of the US and the EU. *Results* allowed identifying specific features and changes in the regulation of foreign trade of the EU and the US, assessing the impact of the pandemic on their foreign trade. It was found that both mentioned players of the world economy have actively introduced both deterrent and liberalization measures during 2020, which were aimed at providing the domestic market with scarce COVID-related goods. The study shows the transition from export restricting to import liberalizing measures in foreign trade policies from the start of pandemic to the late 2020. *Practical implications*. Understanding and predicting the possible actions of partners (the US and the EU in this case) in the field of foreign trade regulation is an important practical aspect, which has to be taken into account when developing Ukraine's foreign trade policy. *Value/originality*. The study of foreign trade policy of the world's leading countries allows us to understand the behavior of governments of the countries that are largely dependent on participation in international trade in their development, to draw conclusions about the most common instruments of foreign trade policy in the time of humanitarian and economic crises.

Key words: pandemic, crisis, foreign trade, foreign trade regulation, liberalization, protectionism, export, import.

JEL Classification: F13, F14, F52

1. Introduction

The global crisis caused by the pandemic of the unexplored virus has significantly affected the economies of almost all countries, affecting all spheres of public life, including international trade. The first signs of the trade downturn were already evident in January, with most of the major economies recording negative trends. Still, the sharpest drop in international trade occurred in the second quarter of 2020, with global merchandise trade falling by more than 20 per cent relative to the same quarter of 2019 (UNCTAD, 2021).

In the current context of a real threat to the health and security of nations, governments around the world make decisions aimed primarily at solving two main tasks: the first – ensuring the health of nations, and the second – maintaining the stability of the national economy and minimizing economic losses.

The study of measures in the field of foreign trade aimed at ensuring these objectives is the purpose of this study. To achieve this goal, the following tasks have been identified: to analyze the general changes in the foreign trade policy of states in a pandemic with an emphasis on COVID-related goods; to study the peculiarities of the foreign trade policy of developed countries in modern conditions, in particular the EU and the USA; to assess the effectiveness of the implemented measures in the overcoming of the

Corresponding author:
[1] Uzhgorod National University, Ukraine.
E-mail: viktoria.mashkara@uzhnu.edu.ua
ORCID: https://orcid.org/0000-0002-1725-2832
[2] Uzhgorod National University, Ukraine.
E-mail: yuriy.mayboroda@uzhnu.edu.ua
ORCID: https://orcid.org/0000-0002-9137-0941

consequences of the pandemic and the impact of their introduction on trade and economic relations with partners.

2. General characteristics of changes in the regulation of foreign trade under the COVID-19 pandemic

The general functions of foreign trade regulation include adjusting the conditions of access to domestic markets for foreign goods (either to protect domestic production or fill the domestic market with scarce goods, or both), and the realization of export opportunities of domestic producers and their advantages in the world market. However, the role of foreign trade policy during the coronavirus crisis, according to experts of the World Trade Organization, should be aimed primarily at facilitating access to critical medical products and raw materials for their manufacture, preventing restrictions on access to such goods to poor countries; supporting exporters to maintain jobs and foreign exchange earnings; simplification of regulatory and customs procedures to facilitate access to COVID-related goods and food (World Bank Group, 2020). At the same time, the application of export taxation or banning the export of medical goods in order to "keep" them in the domestic market is considered as undesirable.

Changes in trade policy were among the first steps taken by the governments in the first months of the pandemic, as most of them have activated their interference in export-import activities. Thus, in May 2020, three months after the beginning of the pandemic, the WTO reported the introduction of restrictions on the export of medical goods by 85 countries (World Bank Group, 2020). The foreign trade policy of almost all countries has undergone two key changes: the abolition or reduction of restrictions on food imports and the growth of restrictions on exports of medical goods.

The depth and dynamics of the application of measures depends on the severity of the situation in the medical sphere of the country and the state of the internal market of a particular product (shortage or surplus), the country's dependence on export earnings and commitments, i.e. involvement in various trade agreements. It is obvious and predicted that the active application of bans on the export of protective medical goods has significantly affected their price. Thus, according to the WTO data, the global price of masks and protective clothing increased by 22% and 20%, respectively (Evenett et al., 2020).

As for the direction and combinations of measures, there are cases of applying either export restrictions or import supporting, but for the most part countries are using both combining them. In particular, in 2020 the most used measures were: restrictions, bans or additional control measures on the export of medical devices (overalls, masks), vaccines and components for their manufacture; reduction of duties or temporary exclusion from the restriction of imports of the above goods, accelerated licensing procedures; physical ban on imports of industrial goods not related to the protection of public health (clothing, cosmetics) that are not critical to the domestic market; restricting food exports and tightening sanitary control procedures.

Generalization of the data provided by Evenett et al., (2020) makes it possible to conclude:

1) during 2020, especially in the first half of it, the states applied various combinations of measures somewhat chaotically and unsystematically. However, by the end of the year, it became clear that most governments were inclined to take measures to liberalize trade in health-related goods and foods;

2) as for the trade in medical goods and food as the main sectors covered by new measures – 32 percent in the total number of measures were those that promote trade in medical goods and 32 percent were restricting it, 16 percent concerned food trade bans and 19 percent liberalized trade in foods;

3) regulatory measures covered about $ 200 billion medical goods and $ 81 billion food;

4) quantitatively, measures to liberalize imports exceed measures that restrict exports;

5) in the regional context, the countries of South Asia were the most active in application of measures aimed at facilitating food trade, and the most of the measures promoting the import of medical goods were introduced by the countries of East Asia and the Pacific region;

6) Western Europe, the Balkans and Central Asia are the regions with the most active application of export bans.

In some high-income countries, and in those in which pharmaceutical concerns-developers of vaccines against COVID-19 have succeeded in this direction, the phenomenon of "vaccine nationalism" appeared. Vaccine nationalism occurs when governments sign agreements with pharmaceutical manufacturers to supply their own populations with vaccines ahead of them becoming available for other countries (Khan, 2021). Countries contracted to purchase vaccines from different developers even before the tests were completed, thus booking several doses of vaccines from different manufacturers for each of their citizen. So, rich countries with just 16 percent of the world's population have bought up 60 percent of the world's vaccine supply. Many of these countries aim to vaccinate 70 percent of their adult population by midyear in pursuit of herd immunity (Kretchmer, 2021). Further, governments seek to conclude priority bilateral agreements with developers of effective vaccines to ensure that their citizens have priority access to vaccines, thus preventing the world's

least developed countries from vaccinating citizens and, in effect, preventing COVAX collaboration to ensure equal access to vaccines to the rest of the world. The World Health Organization, the World Forum and other international institutions and some experts emphasize the harmfulness of this approach and warn that the economic losses from the vaccine isolation of underdeveloped countries will primarily affect developed countries. According to the data (International Chamber of Commerce, 2021) if advanced economies continue to prioritize vaccination of their susceptible populations without ensuring equitable vaccination for developing economies, the total cost to the world varies between US$ 1.5–9.2 trillion.

Although the World Trade Organization monitors and records both measures regulating the export of vaccines and other instruments affecting cross-border flows of pandemic-related goods and publishes the list COVID-related measures on its website (World Trade Organization, 2021) the organization has taken a position to criticize unfair practices. It does not affect their application directly and does not take any action to eliminate them, nor does it oblige its members to notify the implementation of such measures.

3. The US trade and foreign trade policy in the pandemic

Shifts in international trade are reflected in US foreign trade performance. The government's active policy of promoting the import and export of medical supplies, together with rising world prices for this group of goods, could not but affect the US trade balance. Some studies (Leibovici, Santacreu, 2020) point to the fact that, that usually in times of crisis and depression, imports decline faster than exports, which in turn causes a reduction in the trade balance (growth in trade deficit). Thus under the Great Depression in US exports fell by 24.6 percent and imports by 34.3 percent. In the first part of 2020 exports of U.S. goods dropped by almost 25 percent, while imports of goods dropped by about 17 percent, so that by June 2020, the U.S. trade deficit in goods had increased to $50.7 billion (by 20 percent). The share of medical goods in US imports was only 0.7 percent at the beginning of the pandemic, while the trade deficit in the medical goods sector was 0.34 billion dollars out of 42 billion total deficit, which is less than 1 percent.

As of June 2020, imports of medical goods to the United States more than tripled to 5.42 billion, the share of medical goods in imports increased from 0.7 percent in January to 2.5 percent, the trade deficit in medical goods increased to 3.9 billion (by 1049 percent). Given that the gap between US exports and imports between January and June increased by 8.66 billion (from 42.04 to 50.7 billion dollars), and the increase in the deficit in trade in medical goods was 3.9 billion, it is obvious that the US trade deficit by more than 40 percent was formed by the trade deficit in medical goods (Leibovici, Santacreu, 2020).

Along with the increase in imports of medical goods, sales of US expert products like fuel, cars, and clothing have decreased significantly, reflecting the global trend. According to UNCTAD, in 2020 world energy exports decreased by 35 percent, car exports – by 26 percent.

The "economic nationalism" in trade regulation has been justified by the threat to national security and was reflected in the actions of the American government. First President Trump and later President Biden have applied Defense Production Act for stimulation of internal PPE (personal protective equipment) production and provision of vaccines for citizens. This Act was adopted in 1950 by President Truman and allows the US government to apply special measures to support domestic producers in the face of threats to national security (and this definition includes both external military threat and internal threats – terrorist acts, natural disasters, etc.). The Act authorizes the President to require companies to prioritize government contracts and orders seen as necessary for the national defense, with the goal of ensuring that the private sector is producing enough goods needed to meet a war effort or other national emergency. It also authorizes the president to use loans, direct purchases and other incentives to increase production of critical goods and essential materials (Selsky, 2021). If these measures have a temporary effect, they will help to address the issue of internal shortages of goods. However, the duration of their action will cause a high-degree influence on global competition as may be used as a measure of protectionism for artificial support of non-viable industries.

The impact of the pandemic on the US-China trade relations is of greatest interest. In January 2020, the parties have signed the so-called Phase One Deal Agreement, under which they agreed on significant reduction of tariffs in mutual trade, decided to restore mutual obligations, in particular in the field of technology transfer and intellectual property relations (Wong, Chipman, 2020). According to the agreement, the United States and China decided to expand trade, under which China undertook to increase purchases of agricultural and energy products from the United States. However, during 2020, experts raised two questions – whether China will be able to continue to meet its obligations in the crisis and whether it will not use force majeure circumstances to review the agreement, and whether the United States can supply the right amount of products in the current conditions (Emerson et al., 2020). Given that none of the countries has yet expressed its claims, it is clear that apparently the

trade conflict between the United States and China in a pandemic has become latent.

Both sides have adopted a number of easing of existing restrictions. In particular, China has granted temporary tariff exemptions for medical devices provided by the US government or manufactured by certain US state-owned enterprises that were previously imposed in response to additional duties applied by the United States. The United States has also adopted a number of exemptions from trade restrictions imposed on China, most of them – only for medical goods (plastic and rubber medical devices, plastic medical utensils, protective clothing, shoes and face masks). However, the US government has rejected China's requests for deeper concessions on the abolition of tariffs, so the trade dispute is far from being resolved.

The multibillion-dollar customs revenue from taxing Chinese imports is an another reason to keep the US government from revising the restrictions. According to the US Treasury, tax revenues increased by 73 percent, to a total of $33.9 billion in the first half of 2019 compared to the same period in 2018 (and after 10 months of customs duties on China in action) (CNBS, 2019).

During the year of the health crisis, only those sectors directly related to the protection of the population from the viral threat underwent changes in mutual trade between the United States and China, and mutual concessions did not significantly change the tense of trade relations. Since the Phase One Agreement in force, China's average tariff on US goods has fallen slightly from 21.2 to 20.7 percent, and the level of tariff protection for the US economy from Chinese exports has not changed at all (19.3 percent). At the same time, China's average import tariff relative to other countries is 6 percent, while the US average tariff relative to other countries is 3 percent (Bown, 2021). Summarizing the data of the WTO report on measures introduced by the United States in 2020 (data do not take into account measures related to vaccines export), show that most of them relate to the promotion of imports of COVID-related goods through the abolition or reduction of duties, deferred payment of duties, export control over COVID-related export.

4. Foreign trade policy of the European Union under the COVID-19 pandemic

Foreign trade is an important factor of the European Union's prosperity and determines Europe's leading position in the international arena. The EU conducts about 15% of world trade in goods and is the world's largest exporter of industrial goods, of high-quality and high-tech products (Eurostat, 2020).

The common trade policy of the 27 member states allows the EU to remain a leading player in the world, adhering to the principles of transparency, proportionality, openness and unity. For example, tariffs on imports of EU industrial goods are among the lowest in the world. Imports from many suppliers of industrial products to the EU enter the bloc at reduced rates under the terms of bilateral agreements or other import duty suspensions, like the Generalised Scheme of Preferences. At the same time, in response to tariff restrictions on the part of the world's major trading players, the EU's foreign trade is characterized by a fairly high degree of non-tariff barriers to trade, such as technical barriers to trade or sanitary and phytosanitary measures (European Commission, 2021).

Nevertheless, the first months of the COVID-19 crisis revealed the most vulnerable points in the EU's foreign trade policy, so that the main principles of it have been severely criticized. The crisis was noticeable not only in extra-EU trade, but also in the internal markets of the EU with a reduction in domestic production, weakening of strategic industries and break of established supply chains. In the spring of 2020, there was a shortage of COVID-related goods, primarily masks, medicines and medical equipment, on the EU internal market. This was due to the rapid growth in demand for this group of goods, export restrictions of third countries and insufficient production capacity in this area, but also the internal ban on Member States to export COVID-related goods to other members of the Union (Hervé, 2021).

The statistical data on the trade in COVID-19 related products between the first semester of 2019 and the first semester of 2020 show that the growth rates for imports were highest for protective garments (+187 percent), sterilization products (+ 73 percent) and oxygen equipment (+28 percent). In exports, the growth rates were the highest for sterilization products (+24 percent), diagnostic testing equipment and medical consumables (+ 13 percent both) (Eurostat, 2021).

According to Eurostat, the United States, China and Switzerland were the EU's main trading partners for COVID-19 related products =. The United States was the main partner for exports, China – the leading importer. Thus, imports of these groups of goods from China increased from EUR 1.5 billion in May, 2019 to EUR 8.5 billion in May, 2020. This was primarily due to growing European demand for protective garments from China. Exports to the United States for these groups of goods increased from EUR 4 billion in March 2019 to EUR 8 billion in March 2020. The medical consumables and diagnostic testing equipment were the main commodity items of exports to the United States.

The EU's foreign trade, like the foreign economic sphere of most countries, has undergone significant changes in 2020. According to Eurostat, the annual

decline in exports of goods was -9.4percent and -11.6 percent in imports. The COVID-19 pandemic hit trade hardest between March and April with exports falling from EUR 176 billion to EUR 125 billion and imports falling from EUR 148 billion to EUR 125 billion (Eurostat, 2021).

Nevertheless, the foreign trade balance of EU goods in 2020 was in surplus and amounted to EUR 217 billion, which is EUR 26 billion more than in 2019. At the same time, there was a sharp decrease in exports and imports compared to 2019 for the following main product groups: machinery & vehicles (-12 percent), other manufactured products (-10 percent) and in particular energy (-40 percent). At the same time, changes in the EU's foreign trade did not affect trade in chemicals, food & drink, raw materials (there was only a few percent drop in imports of these items) (Eurostat, 2021).

In these circumstances, the EU called on member states to make careful use of existing instruments of influence in foreign trade policy, in particular those relating foreign investment in health infrastructure or essential supplies. For instance, the European Union encouraged international exchange where it might contribute to its public health interests. This was reflected in the Commission's decision to suspend customs duties and VAT on masks, protective equipment, test kits and medical devices at the beginning of April (Hervé, 2021).

The vaccine trade is the most delicate aspect of regulation. The European Union has been accused of "vaccine nationalism" because of the intent of blocking vaccine exports to Britain. The European Commission has added new criteria for obtaining a permit to export vaccines – the principles of reciprocity and proportionality. This will take into account the stock of medicines in the importing country, the existence of export restrictions on vaccines or raw materials for their production in this country, the degree of vaccination of the population and the epidemiological situation in general. At the same time, the EU will not stop exporting vaccines, especially to underdeveloped countries, while remaining the world's largest exporter of vaccines (Chalmers, Abnett, 2021).

In general, the EU applied the following measures regulating the its foreign trade under the pandemic (World Trade Organization, 2021):

1. Export restrictions – primarily concerns temporary restrictions of exports of COVID-19 related products (like face masks and medical protective equipment) to destinations outside the EU, increase in export bans on medicines within the internal market by the state-members and export authorisation of COVID-19 vaccines, both for internal market, and for participating countries.

2. Import liberalizing measures – relief from import duties and VAT exemption for goods needed to combat the effects of the COVID-19, implementation of "green lane" border crossings for land (road and rail), sea and air transport to protect health and ensure the availability of goods and essential services, flexibilities provided by the existing EU public procurement framework in emergency situations, measures supporting the essential transport flows, simplifications of customs provisions relating to the customs decision-making process, customs procedures and customs formalities, measures on the optimal and rational supply of medicines, reduced import rate of COVID-19 in vitro diagnostic medical devices and services closely linked to those devices, an exemption of VAT for COVID-19 vaccines.

With regard to foreign trade cooperation, the EU demonstrates a balanced approach and selection of the optimal form of mutual trade with major partners, based on the principles of solidarity and mutual support. Thus, in December 2020, the EU signed a new investment agreement with China, which last year became the Union's main trading partner, displacing the United States. The EU leaders also talk about the possibility of revival of a transatlantic free trade due to closer cooperation with the United States.

In turn, the establishment of mutually beneficial trade relations with the United Kingdom remains one of the main strategic tasks in the EU trade policy. The signing of the trade and cooperation agreement with the United Kingdom in December 2020 demonstrated the Union's flexibility and willingness to compromise on relations with countries that are not members of the common market (Hervé, 2021).

In 2020 the EU took measures aimed primarily at filling the domestic market with strategically necessary COVID-related goods. In February, 2021 the European Commission suggested a new strategy of trade policy, which includes tougher tools to protect the internal market EU in response to unfair trade practices by the EU's main trading partners (primarily the US and China). At the same time, the European Community strives to preserve the strategic autonomy and integrity of the single internal market, basing on the openness of foreign trade principle. At the same time, the EU will monitor major trading players around the world for transparency and fairness and will work to revive the WTO as the main platform for resolving disputes in international trade.

5. Conclusions

The case of the modern pandemic is unprecedented from the point of view of the application of instruments of foreign trade regulation. The priority of foreign trade policy in 2020 was to provide the domestic market with critical goods – medical equipment, pharmaceuticals and raw materials for their production. The threat to national security has forced governments

to take tough decisions, especially in regulating trade in medical goods and vaccines. Trade conflicts between countries, aggravation of relations between members of integration groups, even competition between regions and administrative units of countries have become widespread. The vaccination nationalism appeared as a new case of interfering national governments into foreign trade. As a study of measures undertaken by governments at the start of pandemic show, most economies applied strict restrictions of COVID-related export combined with some liberalization of imports. Later active measures to curb the export of goods have been replaced by the liberalization of trade in these goods as a necessary step in ensuring access to critical COVID-related goods in a pandemic crisis.

The US government has applied Defense Production Act for stimulation of internal PPE combined with temporary tariff reductions for medical exports, including those from China. However, neither the ease of trade restrictions related to China, nor the so-called Phase One Deal Agreement between the USA and China have sufficiently changed the "close-to-trade war" relations between the parties.

As to the trade measures applied by the European Union, a wide range of non-tariff measures were undertaken to fill the lack of COVID-related goods, which proves the status of the union a as trade partner which uses non-tariff (especially technical) instruments for regulating the foreign trade in a broad scale.

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SYNERGISTIC APPROACH TO THE CAPITAL ADAPTATION: CAPITAL AS A MULTIFUNCTIONAL DISSIPATION SYSTEM

Oleksandra Ovchynnykova[1], Kostiantyn Netudykhata[2]

Abstract. The *research subject* of the paper is the process of capital adapting. The *purpose* of the article is to present capital as a multifunction dissipation system, which consists of the number of interconnected subsystems that operates being under the influence of destabilizing socio-economic factors. There is still no explicit definition of economic adaptation, and capital is not regarded as a set of tangible and intangible assets. Taking into account that the current operating environment, at both the macro and micro levels, may be characterized as unsustainable, and each system strives to organize itself to achieve the main objective, it is worth considering the process of adaptation, using a synergistic approach. This requires looking at the concept of capital as a multifunctional system, firstly, identifying which economic categories are made as subsystems of capital and which of them form capital, secondly, assessing potential areas of adaptation, thirdly, and identifying where adaptation can be targeted in the first place, fourthly. Determination of priority goals is the task of rapid financial analysis, using the results of strategic analysis it is possible to determine long-term goals of adaptation. *Methodology*. The article uses methods of empirical knowledge aimed at structuring approaches to the concepts of capital, their selection and analysis. Based on the empirical research, theoretical studies have been carried out. It was used such methods us analysis and synthesis, deduction, abstraction and generalization. The conceptual framework is based on the theoretical developments in various scientific fields that have studied capital, the enterprise, the economic system as an economic category, the concept of adaptation, synergies in the economy, and methods of strategic and financial analysis. By examining and analysing existing approaches to the listed issues, it has become possible to propose a definition of capital adaptation as a multifunctional dissipation system. As a *result* of the research, it became clear that for sustainable adaptation, it is advisable to use the tools of strategic management, and for instantaneous adaptation tools to ensure the economic and financial security of the enterprise. In the process of writing this research, it became clear that it was necessary to study issues related to the characteristics of subsystems, their assessment and analysis in order to make the adaptation process more multifaceted and effective.

Key words: capital, capital adaptation, synergistic approach, economic system, enterprise and entrepreneurship.

JEL Classification: D24, G32, L26, O29, B10

1. Introduction

There is still no clear definition of the term "capital adaptation", so the methodology of the process is lack. Adaptation is essential for accommodation organisms to volatile environments (often negative). Similarly, like living organisms, the economic system and its components, like subsystems, have to respond to environmental change and react to them saving a certain balance. The aim of research is to understand what is capital adapting. To this, it is necessary to take the enterprise as a part of the economic system and to pay attention to the way in which economic agents react to potential stimuli. The research problem is as follows: if can capital be considered as a narrow definition, scoring only tangible or intangible values? If it is worth considering capital as manifestations of heterogeneous forms of property, based on what the enterprise is a symbiosis of property, knowledge, skills, experience, business ambitions, practice background? Thus, using the methods of analysis and synthesis of existing approaches to solving declared problems, the article introduces the idea of considering capital as a multifunctional system that shows signs of dissipation and seeks self-organization to adapt to external and

Corresponding author:
[1] Petro Mohyla Black Sea National University, Ukraine.
E-mail: ovchynnykovao@gmail.com
ORCID: https://orcid.org/0000-0002-0624-5549
[2] Petro Mohyla Black Sea National University, Ukraine.
E-mail: kostnet1@gmail.com
ORCID: https://orcid.org/0000-0002-5322-4986

internal influences. The logic of material delivery makes it possible to follow the etymology of the development of the "capital" definition, to understand the concept of multifunctionality of capital, to define the concept of adaptation in the enterprise, taking into account factors of tactical and strategic management. According to this, basic tools are proposed to identify "weaknesses" in order to adapt to the environment's fragility.

2. Development of the capital concept

The first attempts at scientific analysis of the term "capital" are found in the works of ancient Greek philosophers. In the middle of the 6th century BC, Aristotle proposed to divide the science of housekeeping "Economics" and the science of the art of managing property (capital) – "Chrematistics". Thus, activities aimed at obtaining the necessary benefits are bound to become activities aimed at accumulating those benefits (Palekhova, 2007). The next stage of the study of the definition of capital began almost two thousand years later with the emergence in Western Europe of the 16th century of the Mercantilism Economic School, which sought an answer to the question of what is wealth and how to determine the sources of that wealth (Mochernyi, 2005). The Classical School of Political Economy, which was founded in the 18th century in Great Britain, reverted to Aristotle's ideas. By investigating the essential of capital, they came to believe that capital takes part in production. In the 20th century, scientists did not attempt to provide a universal definition of capital but formulated a multi-polar definition. The mathematics school suggested considering capital as any resource that could be used in the production process. Economists have proposed a definition of capital as resources created by productive activities that are used to the further production of goods and services; goods that are not destined for direct human consumption: investment goods, capital goods (McConnel & Brue, 2003). Institutionalists have characterized capital as investment wealth, which is measured by the value of the future income that will bring capital to its owners (Korniichuk, Tatarenko & Poruchnyk, 1999).

Blank (2004) defines capital as economic benefits that have been accumulated as cash reserves and in the form of real capital goods, which are involved by the owners of these benefits in the economic process as an investment resource and a factor of production. The main purpose of using capital as an economic good is to generate income which in the economic system is based on the principles of a market economy and is related to the factor of time, risk and liquidity. In classifying the capital of an enterprise, Blank (2004) distinguishes such forms of capital: financial flows, money, tangible and intangible assets. Paul Theodore Heyne (1993) introduced into economic science the concept of human capital, which allows the efficient use of capital as any form of property. According to the Oxford Dictionary, capital is a good of property (tangible assets) and other assets. Ethan Roland (2015), referring to this definition of capital, proposed to equate "other assets" with "tangible assets," and to consider the financial system and capital as an ecosystem that consists of a number of subsystems as: empirical, intellectual, spiritual, social, material, cultural, basic (providing basic needs) and financial capital. This concept of capital is based on the permaculture principles, which is based on natural relationships in the ecosystem.

3. Synergistic approach: capital as a multi-functional system

By analysing the proposed approaches to understanding the nature of capital, it is possible to determine that capital is an extended, multifunctional system, following the example of an ecosystem. The system of capital is formed from the enterprise itself as an economic entity, from property in any form of its manifestation, and from a number of socio-economic components. These are all subsystems that make capital (Figure 1). This symbiosis ensures the continued operation of enterprises at all stages of their life cycle. Each of the subsystems works together and ensures the efficiency of the capital system. Since the main purpose of entrepreneurship is to generate profits, and capital (as a multi-functional system) is the key to successful business, it is possible to identify capital with the enterprise. If any organism or system (as a group of organisms) is forced to adapt to environmental changes in order to survive, the enterprise and capital have to adapt to the current conditions of exposure in order to sustain successful activity.

Considering that the economic system is an open-minded dissipation system and that the operating conditions of enterprises in modern economic realities are characterized as unstable and destabilizing, each enterprise has to adapt in one way or another to external and internal influences. Therefore, capital like an enterprise is constantly in a state of adaptation, which is identified with a continuous process of evolution (change or adaptation) like any living organism. It is appropriate to view the process of adaptation as the use of a body of knowledge, skills and experience that are hold by human capital. It is the labour force that is useful and indispensable in ensuring the successful completion of a firm's life cycles. Labour is the link between tangible and intangible values. It is an intellectual capital that makes it possible to assess the level and nature of external influences, and to select and use the necessary mechanism that will enable an adequate response to stress. Therefore, a balanced and motivated use of information and management tools is an essence of the adaptation mechanism (Tevanyan, 2017).

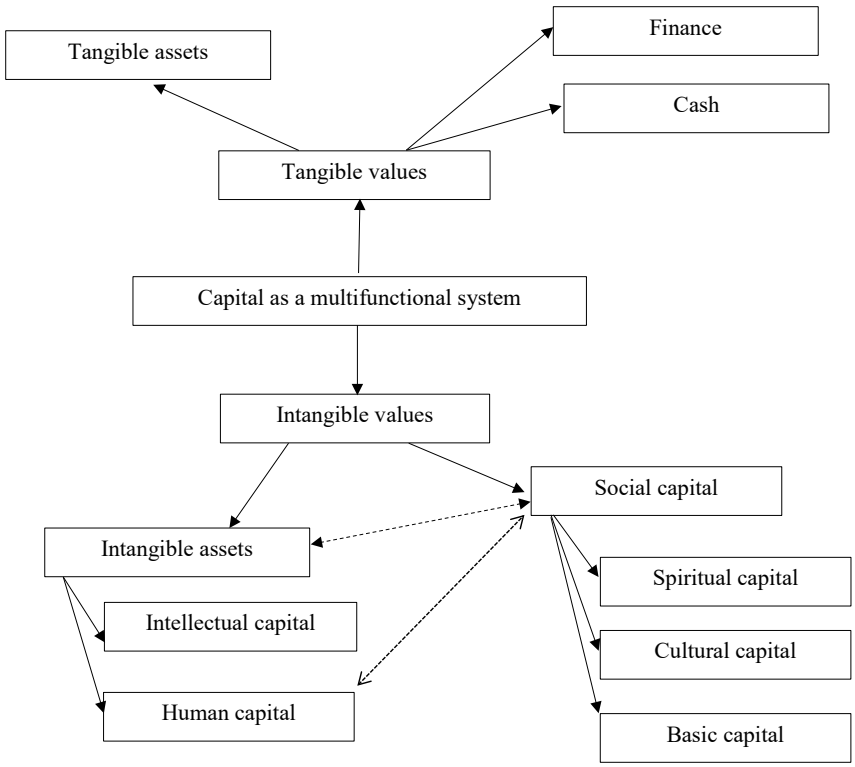

Figure 1. The essence of capital as a multifunctional system

4. Immediate and long-term adaptation: stages of assessing destabilizing factors

A distinction needs to be made between immediate adaptation, which enables a rapid response to destabilizing factors, and sustainable (long-term) adaptation. It is sustainable adaptation that identifies potential destabilizing influences on capital (as a multifunctional system) and reflects the negative impacts of externalities in the long run. Changes in financial performance are signals (markers) of immediate adaptation. In turn, systemic (sustainable) adaptation aims at comprehensive change and accommodation of tangible and intangible property. In determining the direction of immediate capital adaptation, these steps should be followed in assessing the conditions of the enterprise:

– assessment and analysis of external influences;
– assessment and analysis of internal influences;
– monitoring of the actual conditions of the enterprise;
– identification of destructive factors;
– identification of sources of potential risks;
– development of ways to minimize the impact of risk factors.

The development of the adaptation mechanism and tools will be possible as a result of the identification of a set of objectives that will emerge from the analysis of the potential challenges and the existence of the "bottlenecks" (the problem spot in the system). To this end, a preliminary assessment of the enterprise's potentials is carried out by using strategic analysis methods and tools (table 1) (Lepeyko & Kryvobok, 2016).

Strategic analysis focuses on the assessment of external influences on the enterprise, its place in the branch or in the market. From the above proposed methods or tools for estimating and analyzing the externality impact on capital (as a multifunctional system), the economic entity decides at its own discretion, based on the availability of the necessary information. It can be used one method or combination of several ones. The main purpose of the adaptation process is to support an enterprise in a condition that meets the criteria of economic safety at any stage of the business life cycle (Melnik, 2016). The essence of economic security assessment is the ability of an enterprise to withstand potential threats and be able to sustain its own operations and further development (Melikhova, 2018). An economic and mathematical approach can effectively determine the relationship between factors that directly or indirectly affect economic security, assess the degree of influence of these factors, make an analysis, and build a model for strengthening economic security (Koknayeva, 2012).

As mentioned earlier, the main function of a business entity is to make a profit. This means that the formation of a methodological approach for assessing the economic security of capital as a multifunctional system should take into account changes in the profitability indicator (Suvorov, 2001). It is worth noting that the change in financial performance indicators has a correlation with the rate of

Table 1
Methods and tools of strategic analysis

Methods and tools of analysis	Characteristic	Area		Features
		External influencing factor	Internal influencing factor	
STEEPL- analysis	It is evaluated an influence on the enterprise of such factors as: S (socio-demographic); T (technological); E (economical); E (ecological); P (political); L (lawmaking).	✓	×	Helps to identify trends in external influences on the enterprise.
SWOT- analysis	Helps to identify and assess external and internal influences: S (strong points); W (weak points); O (opportunities); T (treats).	✓	✓	Enables socio-economic facilities to be analysed at both the micro and macro levels.
SNW- analysis	Used to assess the internalized environment by strength, neutrality and weakness.	×	✓	Used as a second step after SWOT-analysis.
GAP-analysis	Used to estimate gaps between current, maximum, projected and planned enterprise performances.	✓	✓	Helps to adjust business strategy.
Industry analysis	Determines the potential of an industry in relation to an enterprise according to economic, consumer, competitive criteria; assesses the possibility of entering and leaving the market.	✓	×	It is necessary to obtain information on the state and prospects of the industry, technological level, actual and potential production, profitability, direct influence on the enterprise.
Maps of strategic groups	Useful for assessing competition in the branch.	✓	×	Allows to predict the profitability of the enterprise and to adjust the company development plan.
Porter's five forces model	Used to analyse competition in the market according to such criteria: threat of substitution products; threat of new entrants to the market; assessment of the market power of counterparty; evaluation of the influence of the buyers on a market; level of existing competition.	✓	×	Enables the development of a long-term enterprise development strategy, taking into account potential competitive advantages, which were identified.
BCG matrix	Assesses the position of a company in the market by defining the role of a product in the market through a product life cycle model.	✓	×	The evaluation takes into account the performance of the strongest market participant, allows for the adjustment of the strategy in the short or medium term, shaping the enterprise's tactics.
ADL matrix	The matrix is based on the changing life cycle and competitive position of the enterprise in the market.	✓	×	Allows to track changes in the market over time, similar to changes in the stages of the product life cycle.
GE analysis	The analysis takes into account the attractiveness of the strategic economic zone and the competitive position.	✓	×	Identifies the highest potential product.
Ansoff Matrix	Built from quadrants of product penetration, market development, product development, diversification.	✓	×	Determines the position of the product in the market.
Abel matrix	It helps to define who the consumer is, what consumers need, how to meet the needs of consumers.	✓	×	The matrix helps to identify new consumer needs and meet them by minimizing production costs. It is possible to achieve the aim by means of a synergistic effect during the search for new market segments.

development of the enterprise, and at the same time, the guarantee of economic security is equilibrium. Thus, the economic development of the enterprise should be achieved through economic growth, while maintaining the existing level of economic security or by improving performance while maintaining a conditional equilibrium. Accordingly, in the process of capital adaptation, it is important to conduct an economic and mathematical assessment of the financial security of an enterprise, and to take methods of ensuring sustainability or improving financial security indicators as tools for instant adaptation. Financial security assessment is carried out by analyzing the financial condition of the enterprise. For this, vertical and horizontal analysis of absolute indicators of the capital structure and coefficient analysis – express analysis of the financial condition of enterprises are effective.

At the same time, the balance, which is the key to financial stability and security, makes the development of the enterprise impossible. The motivational impetus is precisely the violation of the equilibrium conditions. Instability arises as a consequence of the impact on a heterogeneous (inhomogeneous) system. This proves that economic adaptation should be seen as a synergistic process. Since synergistic systems are self-regulating, adaptation should not be directed towards capital management. The adaptation process should be aimed at creating sustainable positive relationships. The condition for successful synergy is the union of intangible and material values that form a multifunctional system (Kuznetsov, 2004). Combining subsystems into a single system allows you to overcome the dichotomy (plurality) and consider capital as an integral open economic system. It has an internal structure, the dynamics of which is influenced by various factors, both external and internal (Dombrovskyi, 2013).

5. Conclusions

Having considered capital as a dissipative multi-functional system that combines intangible and tangible values, social capital, it is worth applying a synergistic approach as understanding the process of capital adaptation. To determine the primary goal of adaptation and assess the state of the enterprise's capital, it is enough to conduct a thorough analysis of external and internal factors of influence, using the methods of strategic analysis and express analysis of the financial condition of the enterprise. As a result (successful adaptation), it is worth considering the creation of effective relationships between the elements of the capital system and irritants of any level, the ability of the system to respond in a timely manner to influencing factors. In the future, it is necessary to investigate ways to assess the state of capital subsystems and classify the factors influencing them in order to develop methods and tools for adapting the components of the capital system.

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SOCIO-ECONOMIC CONSCIOUSNESS IS A KEY DRIVER OF THE TAX SERVICE OF UKRAINE

Natalia Riabinina[1]

Abstract. At the intersection of the past and the future there is a point of present, which, due to external and internal socio-economic requirements, activates the subject himself. In the interrelational phenomena of economic consciousness, which bears its personal direction and in manifestations of external economic activity of the subject, acting as a regulator, relying on empirical studies of a dialectic nature, one of the main studies of our time is economic behavior. All factors are unifying, coordination or contradictions of economic consciousness and behavior still act as a dynamic factor for development and progress, which is a key vector of human-tax relations. Without an individual vision of the universe, the present, personality problems cannot be covered and seen by all sides of economic and social society, based on trust and reliability. The level of trust and reliability characterizes the quality of economic and social consciousness of citizens, business, representatives of enterprises, which manifests itself and increases in the development of the interrelationships of civil society and carries results for the tax service. Formulation of the goals and objectives of the article (setting a task). A large amount of research on social consciousness, a wide and varied direction of studying the direction and connection with other disciplines helps to more closely reveal the problems of society and the individual. The purpose of the study is to separate and determine the individuality of a person in the process of economic and social consciousness, attitude and manifestations of personality and group behavior at all levels of this concept, analysis, specificity and structural content exactly inherent in the tax component. *Methodology*. During the study, to study and achieve the goal, the analysis of theoretical aspects and generalizations of scientific sources, dialectical cognition of formation and manifestations of social consciousness of a person when paying taxes, found a kind of economic concept, methods of induction and deduction, abstraction of theoretical provisions and dialectic cognition were carried out. *Results*. The article raises the issue of the importance of social consciousness of the country's tax service for further socio-economic growth and improvement of people's lives, on the basis of intergroup and interpersonal interactions and relationships at a high micro level, on the foundation of trust and cooperation between society and government, unified work and development of state, economic, civic platforms. It is with a person that the mechanism of development, accumulation and effective use begins, so it is the social consciousness of the individual that carries the basis for the further development of the state. The analysis of elements and component of socio-economic consciousness in the individuality of a person in the economic system is carried out and the main components, such as trust and reliability, are determined. The analysis of economic behavior of the individual when making a rational decision in the world of economic changes of the tax service is carried out. *The practical component* of the main provisions of the concept and levels of social consciousness, and its role in the general concept of the economic component can further develop and be used in the process of developing the analysis and development of the individual with individual behavior and personal decision-making for the fiscal service when paying taxes. *Value/originality*. The theory of socio-economic consciousness itself is not new, but the direction of study and application of individual characteristics of taxpayers is new and little researched, so it gives a new impetus to interest and further development of the detection of theoretical aspects, generalization to definition and essence, outlining the main directions of development and formation for the future.

Key words: socio-economic consciousness, behavioral economy, tax service, trust and reliability, tax culture, quality of life.

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Corresponding author:
[1] University of the State Fiscal Service of Ukraine, Ukraine.
E-mail: riabininano@gmail.com
ORCID: https://orcid.org/0000-0001-8378-4485

1. Introduction

At the end of the last century, the influence of geopolitical factors, difficulties in creating market relations, financial crises, neglect of local and national institutions, contributed to the impetus for recognizing the problems of correctness of social and economic decisions. State taxes have always been an urgent topic of society, for the development and further prosperity of the country, so the role of the state and its political and legal component on the moral duty and behavior of a citizen is one of the pressing issues of our time. The multi-vector component of the economic activity of economic entities is aimed at improving the quality of life of the population, because it is the person who stands at the beginning of the development of society, having at the heart of the platform the trust and reliability of citizens to the state and government. One of the indicators of trust in the state is the level of public consciousness and tax culture, which is reflected in the self-organization of payment of taxes and the organization of labor in the tax authorities of the country. Today in modern Ukraine there is a shortage of such trust, and this, at the same time, inhibits the formation of human social consciousness. One of the tasks of the tax service is to achieve social equality and exclusive attitude to the needs of society, and achieving the effectiveness of the tax service depends on overcoming the negative attitude of business entities.

2. The main components of consciousness

The breadth of phenomena and concepts of socio-economic and psychological science, which has long traditions, theoretical explanations, can be combined into two directions: the phenomenon of economic consciousness with elements (intentions, thoughts, assessments, ideas, etc.) and economic behavior, it is individual and group direction that has been studied and analyzed in recent years widely and effectively. The main components of consciousness are cognitive (various forms of knowledge about social objects), emotionally evaluated (attitude and compassion for social objects) and behavioral (readiness and decision-making behavior in the relationship of social objects – motives, intentions, expectations, etc.) we have been clearly observed in recent years when analyzing the results of specific empirical studies, examples of which are: property, material well-being, poverty, wealth, money and attitude to them, types of economic activity, readiness of the individual for self-reliance, social adaptation of the unemployed, psychology of advertising, marketing and others confirm the universality of the structure of economic consciousness phenomena, despite the specific content of those socio-economic objects and phenomena that are displayed in it. In making a detailed analysis, it is possible to distinguish similar natural trends that combine all the main components of consciousness and can confirm the existence of both basic, unchanged elements of the structure and more superficial, local characteristics, the influence of which can be externally. However, the manifestations and development of economic consciousness should be investigated not only in the external environment, as changes in the composition of ideas, modality of relations, level and direction of behavioral readiness, etc., but also manifestations of internal transformations and contradictions of psychological changes and its elements: the study of the past and the analysis of the new, assessment of changes in social norms, readiness for action, intentions of the individual and others that are currently a problem and vision of serious scientific comprehension. "Economic consciousness should be understood as a systemic component of consciousness, a higher level of mental reflection of economic relations by a person." (Deineka, 2000). By dividing the economic consciousness into an individual (the individual is manifested and purposefully acting, with her creative transformations and impressions, relying on personal experience), group (generalized consciousness based on the purpose of combining the group's ideas and opinions on decision-making and decision-making), and the mass (public consciousness on economic issues that concern people, are of great importance and bear decisive, alternative consequences) we gradually draw comparisons and analysis , inherent personality to a wider mego equality, uniting society as a whole.

3. Elements of economic consciousness

Economic consciousness is extremely necessary when studying the internal state of a person, because without knowledge of mental manifestations we will not be able to fully understand behavior and decision-making. The structure of economic consciousness consists of economic emotions and feelings (satisfaction from work or process, craving for knowledge, a sense of pride and respect, excitement, risks, overcoming fears), perceptual economic behavior (attitude and promotion of money, goods, services, advertising, consumer psychology) and economic ideas and thinking (representation of the function and work of the economic sphere, phenomena, laws).

The economic behavior of the individual is us to focus on the presence of people of limited intervals of attention, so the tax procedure must be simplified and made accessible, because non-payment of taxes leads to an increase in inequality. Excessive complexity of taxation, the ability of excess concentration and misunderstanding of taxation can lead to the fact that a disciplined person, with noble intentions, will not pay contributions to the state pocket. By examining the effectiveness of a behavioral economy that helps

simplify citizens' collection of tax information, calculation of payments and tax risks, we can also investigate moral risks. Imagine the dangerous practice of granting tax amnesty, which involves reducing fines and interest. Human attitudes can change co-ordinated when a person understands that fines for non-payment can be weakened or changed simply by ignoring the rules and looking at uncontrolled by state authorities, completely stop paying, which leads to a reduction in tax revenues in the future. In this situation, it is possible to operate with court sanctions with further consequences.

4. Economists of consciousness and international education

Behavioral economists, studying the role of human consciousness, and voxCheck International Education (2014) looked at and investigated the dependence of tax liability of citizens and the possibility of raising public awareness.

The economist James Andreoni (1998, 2002) revealed the importance of the psychological factor in the tax sphere, arguing that human emotions such as shame, duty, guilt, national character traits, demographic, social and moral components need to be adapted and integrated into traditional economic models. One of the main topics of the tax component is the tax collection system. Sometimes, the taxman, from the very beginning, considers a citizen as a fraudster and a potential non-payer, which also contributes to the negative attitude of society to tax authorities and then to pay taxes. Professor of Economic Psychology Erich Kirchler (2011) criticized the method of "criminal and police", which should be coordinated to a more loyal approach, using the method of "client and eternal service". Research by economist James Alma (20012, 2014) proved that high tax rates on equal terms also do not contribute to a healthy climate of tax morality and discipline, the more incorrect, harsh punishment for non-payment of taxes and unclear control of fiscal authorities.

Conducting behavioral experiments with students from 34 countries on bribery, Abigail Barr and Danila Serra, (2010) found a link between tax liability with elements of bribery and the influence of the cultural environment and norms of their country's behavior. Bribes aimed at tax evasion, the person who abuses it, reduces the social norms and values of the society in which he lives and develops. In economics, everything is interconnected. Tax evasion gives impetus to the growth of the shadow economy, which in turn leads to pressure on the economy and social benefits. More often, the state shifts the entire burden of budget execution to conscientious payers, and sometimes, by increasing tax pressure or increasing tax rates, takes away the latter from entrepreneurs.

In the 90s, an Australian model appeared, which took as a basis the concept of "motivational position". People who constantly ignored and refused to pay were blacklisted by fiscal authorities. were constantly under the control of the authorities, and, if necessary, applied court proceedings. Undisciplined payers were punished with fines and audits.

The basis of tax policy is to maintain responsibility through educational initiatives, the comfort of accounting and the convenience of the tax system. Northern European countries use the BISER model, which consists in deep behavioral analysis from the beginning of each person's tax history, its encouragement to cooperate with the tax service. In the UK, behavioural economics teams are working in the tax departments to study tax behaviour, methods to stimulate fiscal payments and build social tax regulations. In the Netherlands, we observe a model of "horizontal monitoring", which is based on the signing of a mutually beneficial agreement between the tax authority and the administration, which affects mutual understanding, cooperation and trust. In Sweden, the model is used "from the very beginning", which is an example of the government's use of broad information and a coherent idea of the tax system itself, its work, the end result and prospects among citizens.

5. Problems of the tax service

How to inform the Ukrainian people that payment of taxes is necessary and mandatory for the country and our economy? Studies were carried out on warning letters, which reported on inspections of tax reports and the results were predictable: low and middle income taxpayers increased the amount of declared income, and with high incomes ignored the situation. Such a study was conducted in a European country. When the issue of fines and their sizes are raised, the opinions of tax authorities and economists differ, because the study on fines did not bring a single result, but the conclusion that effective and optimal fines work only in combination with broad audit control is correct. Recently, we have seen interest in studying behavioral experiments in the field of taxation and tax authorities. Behavioral economists can offer society a model of fiscal policy behavior.

Analyzing the study of research and practices in the behavioral economy of different countries, you are once again convinced that punishment and strict administrative methods for stimulating citizens to pay taxes are not fruitful and correct. Sometimes, an unobtrusive reminder, a friendly and calm response of the taxman, a high service of the tax system is enough for a positive result. Stimulation and "motivation is a set of internal and external driving forces that encourage a person to activity and set the orientation, boundaries and forms of this activity focused on achieving a certain

goal." (Vikhansky, Nausov, 2003). And the painful topic of Ukrainian society is the return and fair use of citizens' money in the form of high-quality social benefits. The question becomes why at such high tax rates, in a country where corruption flourishes and tax evasion is the norm, conscientious taxpayers bear the full burden of the tax system.

Society sees a connection between the tax service and the welfare of citizens. Citizens pay attention to the quality of fiscal services. If social reimbursements are low and inefficient and the quality of public benefits does not correspond to the understanding and vision of society, then tax payments are perceived as unfair and the citizen refuses to pay them. The low average size of the return of social benefits per capita entails a loss of trust in the state, injustice and tax internal protest. "The main task is to carry out tax restructuring in such a way as to cause the least damage to the revenues of the state budget (the so-called income neutral tax shift) and incentives for labor and investment... it is necessary to carry out a general redistribution of the tax burden by applying the entire list of taxes, their elements (taxpayers, objects, base, benefits, rates, etc.), rather than gross actions, jeopardizing budget revenues, abolishing some taxes and introducing unknown things. A sign of a healthy tax policy is the stability of the tax system during the crisis" (Schwabi 2020).

6. Tax culture

Tax policy is the main component of the welfare of society and the state, informing and supplementing the population with a culture of taxation in the socio-economic sphere, forming the tax behavior of all participants in the process. "Taxes not only helped create the state. They contributed to the design of it. The tax system became the body whose development caused the appearance of the second bodies" (Shumpeter, 1918). The taxation process and development are greatly influenced by the level of tax culture. The problems of low tax culture are social contradictions that carry unfair distribution of income in society with devant forms of tax behavior and contradictions of the interests of the state, regulating socio-economic processes through taxation, low living standards of the majority of the population, which deteriorates in the conditions of economic crisis and growth of the shadow economy. Tax culture is a complex socio-economic phenomenon inherent in a society with a market economy, the level of which causes the fiscal potential of the state. The concept of "tax culture" first appeared more than 85 years ago, in an article by the prominent economist and sociologist J. Shumpeter (1883-1950), the author of the concept of "tax state" "Economics and sociology of income tax", noting that "tax culture is an expression of human spirituality and creativity aimed at increasing the level of tax consciousness of society" (Shumpeter, 1918). Research in the field of tax culture to the majority was considered comprehensively, without studying the intricacies of tax behavior. Fairness, honesty, fulfillment of professional duties, promoting the revival of taxpayers' trust in state bodies is the main goal of creating ethical standards of conduct for employees of tax authorities. "Today we are forming a new tax service, in which there is zero tolerance for corruption, and employees are professionals who adhere to a high culture of communication with taxpayers, and taxpayers, in turn, respect the profession of the tax officer." (Verlanov, 2019).

The topic of paying taxes has always been painful and has been in the spotlight. There is still no reasonable and explanatory answer as to why it is preferred to work in the shadows and wages in the envelope satisfy employees. In the labor market in Ukraine, all employed people who are not legally or in fact not subject to national labor legislation, laws of the taxation and social protection system approximately 21.6%, which is about 3.5 million. Persons. State authorities are not able to regulate the process because it goes beyond their competencies and legislation. According to statistics, Ukrainians are in no hurry to share information about their own income with the state, preferring salary in cash envelope and withdrawal of money abroad, although the Parliament has repeatedly approved zero declaration bills (one-time legalization of hidden income).

7. Interaction of the taxpayer with the state

The main stable source of revenues to local budgets is the entrepreneurial activity of individuals. The functions of the modern STS change according to the functional principle, taking steps to prevent fiscal risks and initiate unified approaches to their detection, dividing the work of tax authorities into several areas: risks in the audit. risks with VAT refunds, risks in excises, etc. Tax management, working on reforming the administrative and territorial structure, reducing the number of points of tax services, understands that all innovations will affect the structure of the authorities. Article 58 of the Tax Code provides for the content of the tax notice – by the decision of the State Tax Service on additional non-payment to the payer, a fine, a penalty, which must be finalated in full, according to all the clarifying circumstances of the charges. For reasons of minimization and VAT refund, the painful issue in terms of risks at the end of 2019 is VAT, followed by excise duty, in particular, shortage in the tobacco industry, sale of fuel and ethyl alcohol. The third risk is associated with rent. For example, this applies to gas prices, which is a painful topic for the majority of the population, especially socially vulnerable. Simplifying the payment of taxes consists not in the amount of taxes, but in the plane of

simplification of administration, which can be carried out due to digitization and electronicization, which will lead to a normal, comfortable tax system. The material and legal component of tax law and taxation should be fair: equal income – equal taxes, high incomes – high taxes. Article 212 of the Criminal Code – tax evasion, having 900 thous. Uah. threshold for criminal liability. To raise the topic of taxes and their number, first of all, we need to look at the problem frankly and without lies, saying that there are nine taxes on in fact in each tax three more taxes (property tax has: land tax, property tax, transport tax). Communication between the tax service of the country and business in our time, it is unfortunate to state this as the relationship of enemies, criminal and police officer, while in civilized countries the attitude is open and transparent, everyone pays taxes, the same and all this contributes to the development of the economy. The only requirement of white business is equal conditions: BEPS and the exclusion of the use of pseudo-FLP (limit set by the FLP), which is often used in restaurants and hotels, by using an electronic check, downloading the tax service program. A person who has a turnover of 5 million HRYVNIA per year and at the same time does not have questions in the tax office, can work on a simplified taxation system using the single tax model, if this amount is per day, then you need to pay taxes fairly without shadow schemes and in case of fraud they are waiting for verification, a rate of 15% and a refusal of a single tax. The tax amnesty is planned to work in a package with BEPS and ratification of the agreement on the automatic exchange of tax information, which is likely to be paid, a single rate of 5%. Reduced – 2.5% when investing in government bonds. The purpose of amnesty is to allow people to bleach in front of the state and return funds to Ukraine and replenish the budget, although 300 thousand hryvnias will be amnesty for everyone. Amnesty is a voluntary declaration. In the modern economy, "black" lyle is cheaper than "white". "It is necessary to highlight the weight of human motivation in the struggle of human consciousness between rationality and irrationality, therefore, the study of human behavior in the context of individual and social formation is inextricably linked with the study of its feeling as a member of a democratic, legal and social society" (Hurochkina & Kravchenko, 2020). Ukraine needs a new state policy to build a fair and stable tax system, protecting the fiscal interests of the state and the social needs of taxpayers, reducing tax pressure and the number of inspections. Over the years of independence, Ukraine has gone a difficult way of becoming a state and the tax system and politics are also replaced by constant reform, dictated by the deficit of budget funds and the unevenness of tax revenues to the budget. Increasing the tax rate is not an urgent topic, so in modernity all prerequisites for the development of other segments of tax activity are created – finding reserves for reducing the tax burden and increasing income by increasing tax discipline and the level of tax culture in society, strengthening administrative and criminal liability for tax offenses. The concept of "tax culture" is traced in European science as a result of the unification of common philosophical, sociological and economic concepts of culture and tax and there is still no single definition.

8. Conclusion

An important element of human economic consciousness research when paying taxes is the social policy of the state, namely improving the efficiency of education, health care and other branches of the socio-cultural sphere, which will destroy the negative impact of external factors and simplify the decision-making process of everyone. And this is impossible without the tax authorities of the country. Taxes in the system are perceived as an objective loss, not a social responsibility. Fiscal discipline of a business or an individual, all attempts by the authorities to introduce social responsibility within the framework of tax reform is perceived negatively. The ability to put common interests above personal ones is still the rules of more conscious socio-market systems. That is why the greatest attention in scientific research should be concentrated on the problems of making economic decisions taking into account the tax culture and public consciousness when paying and administering taxes.

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WEALTH: THE ECONOMIC PREREQUISITES OF TAXATION

Mykhailo Sverdan[1]

Abstract. *The purpose* of the paper is to study the economic issues of wealth, which is the rationale and basis for the introduction of a wealth tax. This is due to current sustainable trends in wealth growth and an increase in the number of wealthy individuals. The aim is to determine the economic content, preconditions for the emergence and spread of wealth, to reflect the historical aspects of the development of wealth and its current state, to determine market conditions for the availability of wealth. At the same time, the goal is also the economic justification of wealth from the standpoint of the possibilities of its taxation. The topic of the article is due to the need to reveal the modern market infrastructure for the formation and growth of wealth, its economic status in the context of tax opportunities. In this regard, the economic essence of wealth as a potential subject of taxation is considered, the specifics of the functioning of the wealth tax in a market economy, the most important features of the functioning of the wealth tax are determined. *Methodology*. Economically adequate and objective justification of wealth in terms of the effectiveness of market conditions for its formation and growth allows us to assess the effectiveness of the economic system and the possibilities of public policy in the context of its taxation. This partially ensures the redistribution of public revenues, public goods and wealth. The survey is based on a theoretical generalization and analysis of empirical data on the market economy, wealth generation and its taxation. *Results*. The issue of wealth and its economic nature is studied. The importance of wealth for society and the state is determined. The economic specifics of wealth for its taxation are substantiated. *Practical implications*. Market requirements and opportunities for the formation and increase of wealth are studied. Adequate assessment of the preconditions for taxation is carried out. On this basis, the content of the wealth tax and the preconditions for its introduction are studied. The specifics of the functioning of the wealth tax in a market socially oriented economy are considered. Wealth taxation is considered from the standpoint of economic, social and fiscal efficiency. *Value/originality*. It was found that wealth – a comprehensive, multi-faceted category, which can be characterized as a specific feature of the socio-economic structure of society, which determines its condition, results, dynamics and development tendencies. Wealth characterizes the ability to achieve a positive result in market conditions of managing and using the existing social and economic potential in the community, as evidenced by its level of civilization development. The peculiarities of the functioning of the wealth tax in different countries of the world are considered. The using of the wealth tax as a fiscal instrument in the state tax system is suggested.

Key words: wealth, economy, taxation, property, justice, efficiency, wealth tax.

JEL Classification: E62, H22

1. Introduction

In the modern world, the tax is a holistic and complex social institution that has a long history and directly reflects the level of socio-economic, financial, economic and political development at a particular stage of social evolution. At the same time, the tax can also have a significant impact on the state of social, political and financial and economic systems.

In modern conditions, no country in the world can do without taxes, because they are the basis of the resource base of the state and are the main source of funding for public expenditures. And the more taxes, their structural branching – the better for the state. Another thing is how much taxes and the tax system of the state are acceptable to society, because, from a functional point of view, taxes must play not only a fiscal role, but also have a socio-economic effect. And if, according to the traditional interpretation, taxes embody the economically expressed existence of the state, then any tax for society is, above all, an additional element of the tax burden.

Taxes represent in essence a specific form of financial and economic relations between the state and society, a certain part of which is a taxpayer. These are both

Corresponding author:
[1] National University of Life and Environmental Sciences of Ukraine, Ukraine.
E-mail: sverdanof@ukr.net
ORCID: https://orcid.org/0000-0002-1773-3919

business entities and the population in terms of its individual groups. For a certain category of citizens as taxpayers, a wealth tax is levied. Focusing on the subjects of taxation in the collection of wealth tax, it should first be noted that this is the wealthiest segment of society. The basic basis for the introduction of a wealth tax for the affluent category of society is the object of taxation – wealth. In this situation, wealth has not an arbitrary abstract form, but, instead, a clear form and a specific monetary value, which, in turn, has an individual character and personalization in relation to the taxpayer – the wealth taxpayer.

The wealth tax is also one of the youngest and oldest in world tax history. Its appearance in modern conditions occurred much later than all other types of taxes and tax payments. Wealth tax is the most perfect type of state tax in the tax system of the state, which is the most perfect form of fiscal administration in the context of individual-personal (income and property) taxation of income (property) of citizens.

2. Economic justification of wealth taxation

Taxes appeared as a prototype of their expression, long before the emergence of the state and the class division of society. As it developed, taxes were constantly improved: existing taxes were improved in terms of form and method of collection, the tax system was optimized, the inefficient taxes were gradually replaced by more efficient and rational ones, and new types of taxes were introduced. The latest innovation in tax practice is the introduction of a unique tax – the wealth tax. The specifics of the tax on wealth turns it into a separate, non-alternative element of the tax system of the state.

Tax systems of modern economically developed countries consist of a large list of taxes of various functional nature. The majority of taxpayers are citizens who bear the main tax burden (when paying both direct and indirect taxes). The trend of tax development is to increase the level of tax burden on citizens through the mechanisms of collecting direct taxes – on income and property (personal and real taxes). A kind of "peak" of the tax burden for citizens is the wealth tax as the latest innovation in the tax practice of the state.

During the evolution of the state and society, in unison with them, various concepts of taxation also appeared and developed, in the context of which the hypothesis of wealth taxation gradually became more and more important. In every evolutionary-civilized society there is always a wealthy segment of the population. From a fiscal point of view, it is also a taxpayer, but, unlike most taxpayers, it is generally a category with a special, more powerful tax status. First of all, there were various elements that are identified with the concept of "wealth", as well as certain luxury items, which began to act as separate, special objects of taxation. However, in contrast to the taxation of these objects, which occurs separately in the context of each of them separately, the wealth tax is quite specific in its economic nature and technique of fiscal administration. And if the issue of taxation of certain items of "wealth" and "luxury" is already quite old and quite resolved (although perhaps not definitively and with significant controversy), the issue of the introduction of "wealth tax" is relatively recent, but relevant (with even greater counter-argumentation and confrontation of interests) (Beinhocker, 2006).

The main features that distinguish the wealth tax from other taxes are: (1) taxpayers – only citizens; (2) recovery occurs in the context of personal income taxation; (3) acts as a logical continuation of property taxation; (4) collection is usually carried out (similarly to personal income tax and property taxes in most countries of the world) also on a progressive basis; (5) is imposed on the total amount of income and property (property) of citizens (James, 1978).

The wealth tax takes effect when the total amount of income and property specified in the last item (5) reaches a certain value division, which is usually quite high. It is important that the emphasis is mostly not on obtaining high incomes by citizens, but on the fact that they own a variety of property (as a result of significant financial and investment transactions and as a result of the use of significant income). Thus, a necessary precondition for the introduction of a wealth tax is the achievement of a high level of financial and property status by a "potential" taxpayer. Of course, the wealth tax becomes an additional tax burden for the payer, which is determined solely by the ability of the individual to pay the tax. Therefore, it is in the interests of the state to lay the appropriate foundations for the formation of not only a strong middle class in society, but also to create appropriate conditions for its gradual transformation into a certain elite, wealthy population, which will allow it to significantly expand tax practices and intensify tax activities, new additional taxes, including the wealth tax (Alm, 2006). This requires: (1) real provision of high incomes; (2) creation of appropriate financial market conditions and infrastructure; (3) promoting the development of the property and property market.

Thus, the necessary prerequisites for the introduction of the wealth tax and its effective functioning are: (1) the property market, as well as appropriate methods, mechanisms and tools for assessing the real market value of property; (2) the financial market, financial assets and fictitious capital (various financial instruments), as well as, similarly to the previous one, appropriate methods, mechanisms and tools for estimating their real market value.

The wealth tax is unique. The economic nature of the wealth tax is not so much in the possibility of obtaining significant income by citizens, as provides for the fact of their capitalization and based on the

need to own various property (property – movable or immovable, investment – real or intangible, etc.); that is, everything has a monetary value, a monetary value and, accordingly, it is quite possible that it will be subject to tax distribution. A distinctive feature of the wealth tax is that it is imposed on the total amount of property (property) of citizens. The specifics of the tax on wealth gives it the status of an unalterable element of the tax system – as the pinnacle of tax skills of the state in maximizing the fiscal potential of taxation.

The wealth tax is the last fiscal product of the state. Wealth tax is collected independently from other taxes (personal income tax, property taxes, etc.); it functions together with them, but occupies a special, special place in the tax system of the state and in the system of taxation of income and property of citizens. An important element in the mechanism of tax collection on wealth is the subjects of taxation – the category of citizens who make up the wealthiest stratum of society. Thus, a necessary prerequisite for the introduction of wealth tax is the achievement of a "potential" taxpayer a high level of financial and property status, and the additional tax burden for the taxpayer is determined solely by the ability of citizens to pay tax. Obviously, wealthy citizens have the highest level of tax solvency.

The wealth tax is levied independently from other taxes – personal income tax, property taxes and more. It functions together with them, but occupies a special, special place in the tax system of the state and in the system of taxation of income and property of individuals. In order to achieve a high effect from the introduction of wealth tax, based on purely tax positions, you need: (1) a perfect mechanism for collecting personal income tax (in the classic, standard-traditional form); (2) perfected mechanisms for collecting property taxes, in terms of: 1) taxation of property belonging to the owner; 2) taxation of income generated by the use of property; 3) taxation of income from property transactions; (3) perfect mechanisms for collecting taxes on money and fictitious capital, in addition, similarly to the previous situation, also in terms of: 1) real assessment of financial and monetary assets as objects of taxation; (2) taxation of income generated by fictitious and monetary capital; 2) taxation of income from transactions with various financial instruments.

The purpose of the introduction of the wealth tax was to further strengthen the positions of the principles of social efficiency and justice in the mechanism of personal income taxation of citizens. First of all, the primary element for initiating a wealth tax is the object of taxation, which is defined as "net asset value" (total assets less liabilities). That is, for the calculation of the object of taxation is not taken individual types of property or wealth owned by citizens, and their total amount. An appropriate tax is applied to each type of property or transactions with it. The same applies to certain types of property, which are equated, according to international standards, to wealth – inheritance and gifts; however, they also have special tax regimes: inheritance tax and gift tax. These groups of taxes for the relevant objects of taxation are payable (in appropriate situations) for all citizens, regardless of their income level and financial and property status. Thus, the wealth tax is a universal fiscal category intended to be used as a practical tax instrument exclusively for wealthy citizens (Maslove, 1994).

Therefore, full or partial implementation of the wealth tax is possible. If all the above elements are not present and the introduction of a wealth tax is difficult, then effective mechanisms for collecting personal income tax and property taxes should be developed and implemented, along with the simultaneous allocation of luxury taxes (this possibility is quite obvious and real due to easier implementation).

3. The concept of justice in the context of wealth taxation

Analyzing the wealth tax, we must proceed from the basic premise that taxes are associated with the distribution (redistribution) of public income. The dominant hypothesis of modern tax policy is the creation of an efficient and fair tax system, which is relevant, for the most part, to the taxation of income and property of citizens; this applies to both the general tax system and each individual tax, including the wealth tax. At the same time, it is expedient to analyze not the redistributive mechanism as a whole (taking into account the process of spending tax-mobilized funds), but only the fact of taxation of income (property) in terms of certain categories of taxpayers and features of collection of certain taxes (Wehner, 2011).

The principle of fairness in taxation is based on the need to evenly distribute the tax burden between taxpayers in proportion to their income. Creating a standard of "fair tax": (1) provides for equality in taxation; (2) based on the principle of solvency. The criterion of fairness (equality) characterizes the relative tax regime of different taxpayers. In economic terms, there are two main aspects of the principle of tax justice: horizontal and vertical.

Horizontal equality means direct equality of tax liabilities for all persons in the same tax position (have equal solvency, which implies equal taxation of equal income: for the same levels of income is the payment of equal amounts of taxes based on the same tax rates).

Vertical equality means that the level of taxation is set according to the degree of solvency of citizens. According to the principle of vertical fairness, people who are in an unequal position must be in an unequal tax position: if they receive more income, they must also pay more taxes (this is a tax system where different tax rates are applied depending on income level;

this implies that the tax the burden should be progressively distributed between income levels – that is, the tax rate should increase as the taxpayer's income increases, reflecting the belief that high-income taxpayers have an increased ability to pay higher taxes).

Each of the tax systems has its advantages and disadvantages. As a result, they are often used as part of a set of taxes, as virtually all countries in the world mobilize income through many different taxes. Thus, the state tries to solve the issue of tax burden, achieving the maximum possible implementation of tax principles of fairness and efficiency by creating an "optimal" model of taxation of citizens by introducing a set of taxes: (1) personal income tax; (2) property taxes (at the same time with the allocation of an additional group from them – luxury taxes); (3) wealth tax. The hierarchical construction of personal taxation is based solely on the income and property status of taxpayers, and taxes are paid only from the income of citizens (except when certain property and property are able to generate income; another situation is possible when property and property are the main source income generation). However, it is necessary to take into account and proceed from the fact that in fact the principles and mechanism of implementation of these principles of taxation in different taxes are almost the same, which ultimately gives the same effect (Bernardi, 2005).

The methodological basis for the implementation of the principle of justice is progressive taxation. According to the traditional definition, taxation is progressive if, after the payment of taxes, inequality in the economic situation of taxpayers is reduced (Bernardi, 2004).

Justice (with different concepts) is related to the taxation of personal income and is most embodied in the mechanism of personal income tax. When collecting the wealth tax, it is no longer income that is taxed, but various types of private property of citizens united in one integral complex; income serves only as a source of financing the wealth tax (similarly to the case of paying property taxes). It is also necessary to differentiate concepts and identify differences between property taxes and wealth tax. The obvious differences between property taxes and wealth tax are: (1) property taxes are paid separately for each of them separately on the same basis by all taxpayers, and the wealth tax is a complex tax that covers the total property and is paid separately from property taxes by a separate category of taxpayers; (2) the wealth tax is intended to be paid only to wealthy citizens, provided that the monetary value of their total property reaches a certain division, and the level of income, in fact, does not have a clear meaning and direct relation to this property and wealth tax.

Based on the principle of fair taxation, the wealth tax: (1) acts only as an additional element of the tax burden for wealthy citizens as taxpayers, contributing to the additional mobilization of tax revenues to the budget; (2) other categories of taxpayers do not receive anything (the level of their income does not increase, nor does the level of their wealth increase, and the amount of tax liabilities does not decrease). That is, both the level of income and financial and property status, and the tax position and level of tax solvency of other categories of citizens – taxpayers who are not taxpayers of wealth, remain completely unchanged; in principle, this situation cannot change, as the purpose of introducing a wealth tax is to achieve completely different goals (Slemrod, 1999).

The separation of "vertical" and "horizontal" justice does not allow to solve one of the main tasks that exist in the tax sphere: how to determine the degree of fairness of taxation? After all, for wealthy citizens – wealth tax payers – only increases the level of tax burden. If we assume that the tax policy of the state should be based on the principles of redistribution of tax payments between taxpayers with different opportunities, it means that the very idea of "uniformity in taxation" is unconvincing and even unprofitable. The principle of justice is understood differently. The problem here is that justice is a category, first of all, social, moral and ethical; in economics, however, it is an "alien" element, a relatively relative concept, subjective in nature and therefore far from ambiguous. Different notions of justice give rise to different notions of economic and tax justice. The choice of directions for reforming the tax system and different taxation mechanisms should be made taking into account the presence among potential taxpayers of different groups, which are united by the ability to bear the same tax burden. On this basis, a separate category of taxpayers (wealthy citizens) is allocated and a special type of state tax is introduced: the wealth tax (Sverdan, 2020).

Thus, balancing is a relatively relative concept: at best, it is only partially realized only in the mechanism of personal income tax payment and is hardly inherent in the collection of property taxes (including luxury taxes); therefore, with regard to the collection of the wealth tax, it can be stated that even the relative effect of balancing is absent at all. It also argues that fairness in taxation does not involve balancing income and wealth between different categories of taxpayers; no tax, including the wealth tax, can ensure this. In this case, it is appropriate to emphasize that fairness in the redistribution of income is realized only at the level of the relevant category of wealth taxpayers, and their financial and property status allows to allocate additional taxation and with the help of wealth tax to increase tax revenues.

4. Fiscal expediency of wealth taxation

The practice of implementing the wealth tax shows the presence in the country that practices it, a significant number of citizens who pay it. At the same

time, this is evidenced by the fact that the country's population has the opportunity to receive high incomes, which are taxed not only on a progressive scale in the personal income tax mechanism, but also allow the state to introduce additional higher tax regimes. This is reflected, in particular, through wealth taxes.

The introduction of wealth taxes into fiscal practice is evidenced by the fact that taxation is at a fairly high level of social (socio-economic) evolution, a fairly high degree of civilized perception of tax matters and, to the same extent – fiscal democracy.

Wealth taxes in the modern world are quite rare. Moreover, the trends of tax practice over the past decades allow us to state unequivocally the gradual and quite obvious reduction of the mechanisms of wealth taxation. In today's world, there are hardly a dozen countries in the global international environment where the fiscal practice of wealth taxation takes place. Most countries once abandoned the practice of wealth tax. However, the consequences of the financial and economic crisis of 2008 prompted European countries to recover the wealth tax, as its fiscal efficiency is quite significant and can be quite a significant part of tax revenues (Grahl, 2009).

The possibility of introducing the functioning of the wealth tax is influenced by a number of factors of various kinds: most of all it concerns the financial and economic basis of its existence, and recently it is also significantly influenced by the political factor (McCready, 1992).

Taxes is the main type of state budget revenues. The issue of fiscal adequacy of taxation always remains important and relevant, as the obvious trend in the development of modern tax systems is the lack of mobilization of tax revenues.

The main task in this situation is to find alternative sources of tax revenue that has national financial significance. This can ensure the strengthening of the financial and economic system in the country and the stabilization of the budget system of the state as a whole. Therefore, it is necessary to find additional tax reserves as one of the ways to modernize the tax system and improve the financial situation in the country.

Market-developed countries around the world are constantly transforming and adjusting tax systems. The main dominant features of tax policy – dynamics, mobility, efficiency. According to these criteria, the construction and development of modern tax systems. According to them, tax reforms are being implemented, which focus on improving tax systems and mechanisms for collecting certain taxes. Also, there may be processes of improvement and expansion of certain groups of taxes.

In economically developed countries, income and consumption taxation systems have been formed and function effectively for a long time. In addition, a significant source of accumulation of tax revenues are also property taxes, which constitute a potential and quite powerful tax reserve. Typically, the category of property taxes includes land tax and an extensive system of property taxes, which also include inheritance and gift taxes. In addition, in countries with market economies, another element of them functions effectively – the wealth tax as a unique integrated form of private property taxation. The experience of using the wealth tax is quite long – not only in economically developed countries, but also in many other countries. Its popularity was especially evident in Western Europe (Andersson, 2007) and Latin America (Lymer, 2002).

The economic nature of the wealth tax is not only the ability of an individual to receive significant income, but also includes the fact of ownership of various property (property – movable or immovable, investment – real or intangible, etc.). In any case, everything has a monetary value, a monetary value and, accordingly, it is quite possible that it will be subject to tax distribution. The fiscal nature of the wealth tax is a comprehensive taxation of wealth (income and property) exclusively of wealthy citizens. The content of the wealth tax is revealed by the fact that the payer of personal income tax reaches a fairly high level of its financial and property status, which gives the state the potential to introduce it and mobilize additional funds to the budget. In fact, the wealth tax itself is, in fact, an additional tax on wealthy citizens in the context of personal income taxation.

Thus, for the effective use of the wealth tax is necessary for the effective functioning of the current tax system of the state, especially – personal income tax. Obviously, in this context, an important prerequisite for the likelihood of the introduction of a wealth tax is the presence of property taxes (property). But first of all, it is a perfect mechanism of personal income taxation, and further – a mechanism of property taxation, which operates in the context of personal income taxation. The perfection of the mechanism of personal income taxation and experience in collecting property taxes are the basis for the introduction of wealth tax (Messere, 1998).

It is obvious that the wealth tax is an additional burden for wealthy citizens in the context of personal income and property taxation. And the smaller the individual deduction (non-taxable minimum, or tax-free threshold), the more opportunities to initiate a wealth tax. From a fiscal point of view, this is more profitable because it automatically increases the number of wealth taxpayers, which, objectively, are much smaller than other taxes. In any case, the fiscal efficiency of the wealth tax is successfully realized through an organic combination of elements of its collection: a high object of taxation and low tax rates. The limited number of wealth taxpayers and low tax rates are well offset by the significant size of taxable

items. Thus, due to this, the fiscal efficiency of the wealth tax can be quite significant. The relatively low level of the tax-free minimum automatically determines a fairly large number of wealth taxpayers.

Thus, from a fiscal point of view, the wealth tax is full, well-founded, efficient and fair. At the level of the whole set of taxpayers, the fiscal fairness of the wealth tax is embodied in the fact that its collection provides significant individual discounts and deductions, which significantly reduces the tax burden: the exemptions significantly increase the tax-free minimum, as some private property is not included to the taxable base.

In addition, there is a special fiscal limit in the context of the collection of wealth tax, which sets a certain quota of taxes paid. According to this standard, the total amount of tax liabilities should not exceed a certain division: the total tax mass, which includes personal income tax and wealth tax, should not exceed the corresponding percentage. Thus, so that the tax burden for a particular category of citizens is not too discriminatory, there is a set of tools to establish the position of fiscal justice.

The social significance of the wealth tax is also important for society. Taxation is generally viewed in terms of social justice. The wealth tax greatly contributes to further strengthening the position of social justice of taxation, as its potential allows us to implement the principle: the rich pay more (Hallerberg, 2009).

Thus, the wealth tax is market-adequate, socially acceptable and fiscally efficient, which is guaranteed to give it a proper place in the tax system of the state.

The experience of using the wealth tax in foreign countries clearly demonstrates the fact that the annual number of its payers is growing. The presence of a taxpayer is the basis for the introduction of any tax. And for each type of tax there is a corresponding object of taxation. With regard to the wealth tax, the object of taxation is quite specific. In addition, the number of taxpayers in the context of wealth taxation is the lowest compared to other types of taxes. However, the fiscal efficiency of the wealth tax is significantly enhanced by the object of taxation and the tax base and turns it into a universal fiscal instrument of the state in the system of taxation of income, property (property) of a certain category of the population in society.

5. Conclusions

Given this characteristic, it should be noted that the fact of the introduction of the wealth tax is not a natural accident, but a complex and lengthy process consisting of numerous procedures. First of all, it is the experience of tax practice and the perfection of the collection of existing taxes: the high level of tax efficiency is currently the basis for modifying existing taxes and modernizing the tax system by introducing new types of taxes, including wealth tax. Another essential prerequisite for the introduction of a wealth tax is the development of the market, market relations and market institutions, in particular – the institution of property and financial institutions, ensuring their branching and effective functionality. Without this, the introduction of a wealth tax will be either significantly complicated or ineffective in the nature of its practice. The determining element for initiating and activating the wealth tax is the income of the population – the basis of wealth, its creation and increase.

Full or partial implementation of the wealth tax is possible. If all the necessary elements are not available and the introduction of a wealth tax is difficult, then effective mechanisms for collecting personal income tax and property taxes should be developed and implemented, while allocating luxury taxes among them (this possibility is quite obvious and real due to easier implementation). The wealth tax is levied autonomously from other taxes; it functions together with them, but occupies a special place in the tax system of the state and in the system of taxation of income and property of citizens.

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BLOCKCHAIN TECHNOLOGY INTO STEEL INDUSTRY CURRENT STATE OF FOREIGN PAYMENT ACTIVITY

Yevhen Sotchenko[1]

Abstract. *The purpose* of the article is to analyze the current state of foreign trade in the industrial blockchain of the steel industry, the existing digital platform has gradually formed a large-scale heterogeneous distributed environment. The problems of further development of the metallurgical complex of Ukraine in the world electronic system of international cooperation are determined. *Methodology*. The survey is based on a blockchain technology is an interlinked systematic chain of blocks that contains transaction history and other user data. It works under the principle of decentralized distributed digital ledger. *Results*. Experimental tests prove that production companies, logistics, international payments and consumers can participate in the information certification of steel products via the modern information system. Consumers can understand the real product manufacturing process, effectively avoiding of the incomplete information and low transparency in the traditional information traceability process, and effectively trace the quality of steel products. The system provides an effective payments scheme for promoting the transformation and upgrading of the modern technology steel industry. *Practical implications*. In view of the low transparency of information traceability of current steel products and the defects of information islands, in this article the blockchain-based steel smart contract payment technology quality traceability system is developed and adopted the alliance chain mode and the new digital blockchain platform. The article describes the use of smart payment technology in a full-fledged financial transaction as a transfer funds in cryptocurrency to electronic bank accounts, as well as the transfer of commercial information, including contracts. To do this, the assets and terms of the contract are encoded and placed in the block chain, then the contract is distributed is saved on a set of network nodes and is executed after the condition is triggered. The fulfillment of the obligations of the parties is checked automatically. It is worth noting that the fact that smart contracts only react to transactions. If the asset or the currency is transferred to the program, it starts monitor compliance with the terms of the contract. How as soon as they are fulfilled, the seller receives money, and the buyer is a shipment goods. *Value/originality*. Blockchain technologies enable the use of business information systems that are highly resistant to technical failures and malicious attacks. Costs and time of carrying out business operations are significant.

Key words: exports, imports, metallurgical complex, foreign trade payments, steel production technology of blockchain, price, smart contract payments, crypocurrency, Smart Manufacturing, smart payment, smart structure.

JEL Classification: F13, F39

1. Introduction

The transformation of the global business environment under the influence of regressive factors causes the emergence of new crises in international economic relations. The interpretation of the word crisis, which comes from (Greek κρίσις – solution; reverse) creates a state in which existing means of achieving goals are inadequate, resulting in unpredictable situations that require the development of new approaches to problem situations. Crisis, as a phenomenon, reveals hidden conflicts and disproportions, and it can be considered as an independent phenomenon, an external factor, a political, sociological or economic category.

The recent economic crisis that has gripped most national economies is manifested in the imbalance between supply and demand for goods and services. In a competitive economy, the relationship between business entities due to the crisis must undergo a massive transformation of business scenarios. Crisis phenomena in the economy can lead to the renewal of sociological, ideological, political conditions, and even lead to the reformation of national elites.

The COVID-19 pandemic has spread rapidly around the world, infecting millions of people and nearly halting economic activity, as most countries have imposed strict restrictions on movement to stop the spread of

Corresponding author:
[1] Odessa I.I. Mechnikov National University, Ukraine.
E-mail: sjen@ukr.net
ORCID: https://orcid.org/0000-0002-4503-2351

the virus. Over time, as health threats and human losses increase, the economic damage will become even more apparent and may become the greatest economic shock the world has experienced in decades.

The World Bank as immediate, as is the immediate pandemic impact and long-term growth due to the damage it has caused has identified the global economic outlook for June 2020. The baseline forecast predicts a 5.2 percent contraction in world GDP in 2020, the deepest global recession in decades, despite governments' extraordinary efforts to counter the economic downturn with support for fiscal and monetary policies. In the longer term, the deep recessions caused by the pandemic will leave long-term scars due to declining investment, "erosion" of human capital due to job or training loss, fragmentation of global trade and supply links.

The pandemic crisis requires the development of urgent measures needed to mitigate the effects on public health and economic recovery.

The metallurgical complex is one of the main elements of economy of Ukraine and plays very important role in its future development. Metallurgy is a major contributor to the budget, the main provider of foreign currency in Ukraine. Production of the metallurgical complex is the main component of export of industrial branch of the country in this connection an actual problem is research of a current state and prospects of development of the foreign trade activity of a metallurgical complex. It should be noted that exact production of metallurgical complex plays a key role of definition of foreign economic activity positive influences on subjects of managing on formation of key macroeconomic indicators to which it is necessary to carry: acceptability of a condition of the balance of payments of the country, inflationary expectations and cost of national monetary unit.

2. Analysis of recent research and publications, results and discussion

Among domestic and foreign scholars who have dedicated their works to the problems of foreign trade activity of metallurgical complex should be mentioned I.P. Bulev I.P. (Bulev, 2013), Mazur V.L. (Mazur, 2010), Sardak S., Stavyts'ka A. (Research of the structure and development trends of world market of information technologies, 2015) and others. The presenters in the hallucinations of smart structures were occupied by such presenters, Satoshi Nakomoto (Nakomoto, 2020), George Doran (Doran, 1981), Nick Sabo (Sabo, 2003).

The purpose of this study is to analyze the current state of foreign trade activity of World Ukraine's metallurgical complex and to emphasize problems of effective further development of metallurgical complex with blockchain technology in the modern system of international cooperation.

In the world economy, the key factor of stability and high competitiveness in the end should be a policy of constant innovation to implement innovative technological solutions in the field of information technology, development of new international settlement tools, which requires banks and other market participants to make quick and radical decisions. Model of their financial behavior and strategic line of development of organizational structure. A special place is occupied by the so-called smart structures and technologies based on them, which are widely used in various fields of human activity.

Smart Structure (Smart Structure) is a system that contains multifunctional parts that can monitor and activate control; and can act as a primitive analogue of a biological body. To build such intelligent constructions, software is used that can perform the functions of monitoring and tracking the operation of individual parts of the software application using a predicate system as an expression that uses one or more values with the result of a logical type. One of the most well known smart structures in the world of information technology is the concept of smart contracts, which appeared in 1994, when cryptographer and legal expert Nick Szabo introduced it to use the developed methods of contract law in e-commerce protocols on the Internet. This researcher is also one of the developers of bit gold. Back in 1996, he argued that the minimum amount of micropayment is determined not so much by technology as by the reasonable effort required to evaluate the product and the decisions made, or, in his words, "its transaction value".

However, in practice, the realization of this idea was received only in 2008, thanks to the advent of blockchain technology in bitcoin cryptocurrencies (Nakamoto, 2020). Next, consider the concept of SMART as an mnemonic abbreviation, the components of which are criteria for setting tasks, such as in project management, management and personal development. This abbreviation was first mentioned in November 1981. In a publication by George T. Doran for Management Review (Doran, 1981), formed from the words of English. Specific, measurable, assignable, realistic, time-related – concrete, measurable, has a performer, realistic, limited in time. It is believed that the compliance of tasks with these criteria significantly increases the likelihood of their implementation to achieve the goal. For a more detailed idea of smart payment, first consider the standard forms of documentary payments, which are widely used in the implementation of foreign trade agreements and payments for them (Sabo, 2003).

3. Practical application of blockchain technologies in business

As an example, we would like to cite the deal between Alfa-Bank together with Gazpromneft-Aero, the

operator of the aviation fuel business Gazprom Neft, and S7 Airlines, which launched a blockchain service that allows airlines to pay instantly for fuel directly when refueling aircraft without prepayment, banks guarantees and financial risks for the parties to the transaction.

The service is based on Aviation fuel smart contracts (AFSC), which run on the blockchain platform HyperLedger. Through the AFSC system, the airline transmits to the supplier information about refueling the desired flight, agrees on the preliminary volume of fuel and its price. This data is used to assign a technical task to the driver of the tanker at the airport.

Next, the commander of the aircraft in the system requests from the operator the required amount of fuel, after which the online application is sent to the airline's bank to reserve the required amount in the carrier's account. Instant confirmation from the bank starts refueling. After the service is performed, the funds are written off, and the commercial services of the fuel supplier and the air carrier are sent information about the closure of the application for refueling and reporting documents. The new technology multiplies the speed of financial transactions and reduces the labor costs of airline staff and suppliers.

As an industry leader, Gazpromneft-Aero is not only a conductor of IATA international standards for aviation fuel supply in Russia, but also actively implements the world's best practices and innovative solutions aimed at improving business efficiency. The use of this technology in mutual settlements between airlines and fuel operators will give a new impetus to the development of the entire aviation industry, "said Vladimir Egorov, CEO of Gazpromneft-Aero.

"As a technology leader in the industry, S7 Airlines analyzes and, with sufficient justification, implements promising technologies, including blockchain. We were the first to use smart contracts for letters of credit. After that, they developed a blockchain platform for automating trade transactions between several counterparties and launched a service on it for mutual settlements with agents selling air tickets. Our next step is a service to automate payments for fuel supply. It is an automated trading operation between three parties: a bank, an airline and a tanker. Upon refueling the aircraft according to the pre-established rules, the funds are reconciled and written off. The technology allows to increase the transparency of mutual settlements, to abandon a number of manual operations and speed up processes, "said Pavel Voronin, Deputy General Director for Information Technology of S7 Group.

Made analysis of current state supply chain around the world revealed to become increasingly interconnected, the influence of blockchain is becoming more prevalent. The Factory of the Future spans across a whole network of steel production. Now, more than ever before, manufacturers face the challenge of securely sharing data within and outside industry walls (Riddle & Code, 2021; Ukrmetprom, 2020; Manufacturing Global, 2021; GMK Center, 2021).

To work out the best practice for blockchain, a manufacturer must conduct a structured assessment, which begins with identifying the company's current business problems and future needs. Subsequently, it can then explore how it leverages the technology to relieve the factory's pain points and addresses its needs. Equipped with a strong understanding of the opportunities and challenges it faces, the manufacturer can then choose the most appropriate option from the available technology solutions. (Yan Cao, 2021).

Be reviewed the current situation on the global steel products market (Figure1). China is estimated to have produced 83.0 Mt in February 2021, up 10.9% on February 2020. India produced 9.1 Mt, down 3.1%. Japan produced 7.5 Mt, down 5.6%. The United States produced 6.3 Mt, down 10.9%. Russia is estimated to have produced 5.7 Mt, down 1.3%. South Korea produced 5.5 Mt, up 1.2%. Turkey produced 3.0 Mt, up 5.9%. Germany produced 3.1 Mt, down 10.4%.

Regions and countries covered by the table 1:
– **Africa:** Egypt, Libya, South Africa;
– **Asia and Oceania:** Australia, China, India, Japan, New Zealand, Pakistan, South Korea, Taiwan (China), Vietnam;
– **CIS:** Belarus, Kazakhstan, Moldova, Russia, Ukraine, Uzbekistan;
– **European Union (27)**;
– **Europe, Other:** Bosnia-Herzegovina, Macedonia, Norway, Serbia, Turkey, United Kingdom;

Table 1
Top 10 steel-producing countries

countries	Feb 2021 (Mt)	% change Feb 21/20	Jan-Feb 2021 (Mt)	% change Jan-Feb 21/20
Africa	1.2	-6.4	2.4	-6.9
Asia and Oceania	109.7	7.5	230.8	10.1
CIS	8.0	-1.5	16.8	-0.4
EU (27)	11.9	-7.1	24.1	-3.7
Europe, Other	3.9	5.2	8.2	6.9
Middle East	3.2	-0.9	6.8	0.4
North America	8.8	-8.9	18.5	-7.1
South America	3.5	2.2	7.3	6.6
Total 64 countries	**150.2**	**4.1**	**315.0**	**6.6**

Source: (Worldsteel, 2021)

– **Middle East:** Iran, Qatar, Saudi Arabia, United Arab Emirates;
– **North America:** Canada, Cuba, El Salvador, Guatemala, Mexico, United States;
– **South America:** Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela.

As reported earlier, in 2019, companies of Ukraine's mining & metals sector decreased **production** of **steel** by 1.2% to 20.85 million tons, pig iron by 2% to 20.6

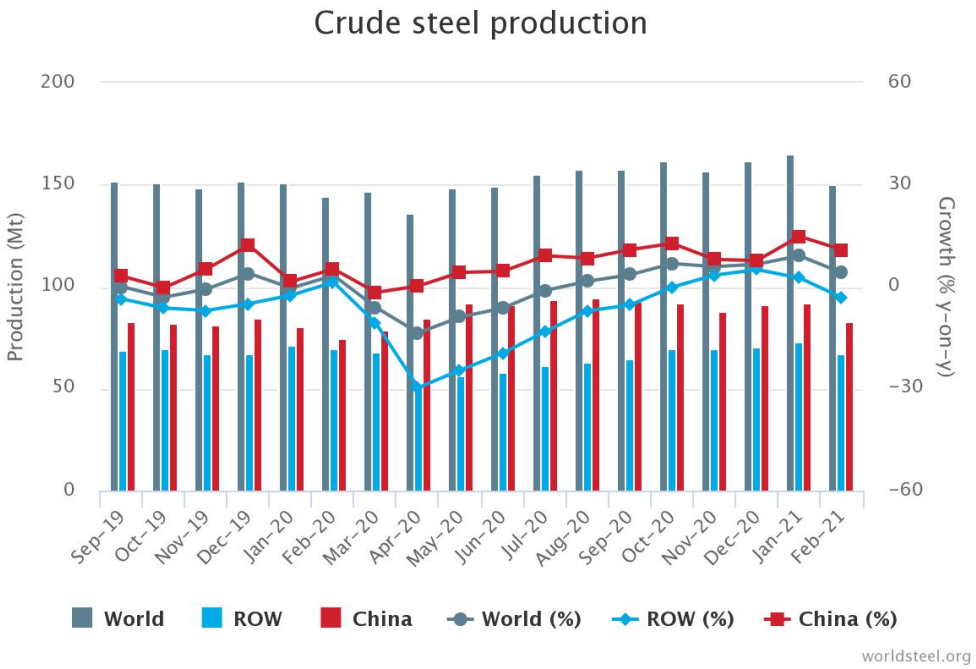

Figure 1. Pattern of growth to world steel production markets

Source: (Worldsteel, 2021)

million tons, rolled products by 0.9% to 18.2 million tons against 2018 (Manufacturing Global, 2021).

4. Prospects for the use of blockchain technologies in the steel industry of Ukraine

The Ukrainian **iron and steel industry** is concentrated in central (Dnipro, Kryvyi Rih, Nikopol), southern (Zaporizhzhia) and eastern (Donets Basin, Mariupol) regions of Ukraine. There are 14 **iron ore mining** companies, 15 **iron and steel** mills, and three ferroalloy plants (Wikipedia, 2021).

To review of the situation before the crisis in Ukraine in the field of iron and steel as a whole In the pre-crisis times the share of metallurgical complex was 27% in the gross domestic product of Ukraine. More than 40% of currency came to the state from metallurgy and it affected state of the economy of the country in crisis. In the conditions of world decline in demand for metal inflow of currency considerably decreased, and the economy experienced decrease much more, than was predicted. The gain of sales proceeds was considerably reduced (Table 2).

In recent years, the metallurgical complex development is influenced negatively by adverse external economic conditions, which are characterized by decrease in the world prices for ferrous metals. A competition aggravation in the markets of Europe and Asia against surplus in the world of capacities, domination in the market of cheap Chinese hire, reduction of demand for metallurgical production in the Middle East which traditionally is one of the greatest consumers of the Ukrainian metallurgical production. In 2013 from Ukraine about 26,5 million t are exported metal production that for 3,6% exceeds the indicators 2012 (Steemit, 2020). In recent years, development of metallurgical complex is influenced negatively by adverse external economic conditions which are characterized by decrease in the world prices for ferrous metals, a competition aggravation in the markets of Europe and Asia against surplus in the world of capacities, domination in the market of cheap Chinese hire, reduction of demand for metallurgical production in the Middle East which traditionally is one of the greatest consumers of the Ukrainian metallurgical production. In 2013 from Ukraine about 26,5 million t are exported metal production that for 3,6% exceeds the indicators 2012 (Mazur, 2010).Reduction of prices in the world markets of metal and metallurgical production led to that in value terms export deliveries of steel products made about 14,3 bln. USD that is 6,7% less, than in 2012. Export deliveries of metal production in 2013 in comparison with 2012 increased by 1,1%, in value terms export deliveries of metal production exceeded 1459 million USD (Table 2).

Dynamics of export-import coverage ratio from the point of view of domestic metallurgical complex is given in Figure 1. As show data of Figure 1 value of export-import coverage ratio from the point of view of domestic metallurgical complex is big units in all studied period.

Data of Figure 2 indicate a negative in development of foreign economic activity of subjects of metallurgical

complex which essence is reduced to the available tendency concerning reduction of coefficient of a covering of export by import of metal production.

The insufficient nomenclature of production of deep processing by the domestic metallurgical companies causes strengthening of its import, first of all machine-building enterprises which consume about a quarter of total amounts of the Ukrainian import of metal production. According to experts, because of the insufficient nomenclature iron and steel works annually receives less about 3 billion USD (State Statistics Service of Ukraine, 2020). Excessive orientation of the domestic enterprises to export of raw production which production demands considerably smaller expenses is the main reason. At present, the global metallurgical market is undergoing significant changes under the influence of the rapid development of China's economy, which not only had a lot of produce, but also actively buys metal and iron ore for its domestic market. In the case of a decrease in demand for metallurgical products of Chinese industry the surplus of produced products are supplied to the world market at very low prices, forcing other manufacturers also to reduce the prices of the metal (Figure 2). This situation has a negative impact on the metallurgical industry in Ukraine, a major export-oriented industry. Therefore, in order to maintain its competitive position and development of new markets for Ukrainian producers and topical issues are finding ways to adapt to changes in the world market and the choice of an effective competitive strategy of foreign trade. One of the effective methods of international management company is the concentration of capital and production capacity through vertical integration of production, which includes organizational business combination, related manufacturing operations under common ownership. With the increased competition on the market, the domestic enterprises are vulnerable to major problems that have accumulated in the branch:

– a significant lag behind developed countries in terms of modernization;
– the high cost of energy and material resources compared with leading;
– foreign companies;
– an assortment of metal is not wide;
– poor environmental performance.

Foreign trade activity allows metallurgical companies to obtain the economic, scientific-technical and social effects. The decline of the volume of production, the artificial reduction of financial results, raw insecurity of production flows out not from world markets and domestic market factors, but, first of all, out of problems of management of metallurgical enterprises. So, well-chosen competitive strategy of foreign trade activity is the key to efficient operation of the business in the global industry market.

Table 2
Sales proceeds of the metallurgical companies in 2011–2012

Company	2011	2012	Rate of growth, %
Azovstal	35786	44423	24,14
Metinvest	26175	35759	36,62
ArcelorMittal	24280	29889	23,1
Alchevsk iron and steel works	12208	21770	78,32
Yenakiieve iron and steel works	13238	21363	61,38
Zaporizhstal	14368	19376	34,86
Dneprovsk iron and steel works	12574	18273	45,33
Nikopol ferroalloy plant	10767	7863	-26,97
Makiivka iron and steel works	6557	2753	-58
Stakhanov ferroalloy plant	1632	1561	-4,3
Kremenchuk steel works	1376	1370	-0,4
Donetsksteel iron and steel works	780	784	0,4

Source: (Wikipedia, 2021)

Table 3
Main indicators of the foreign trade activity of Ukraine's metallurgical complex in 2008–2013

Indicators	2008	2009	2010	2011	2012	2013
Exports, mln. USD	1261,9	1175,2	1548,0	1916,2	1327,3	1459,5
in % to previous year	5,7	6,9	31,7	23,7	30,8	1,1
Imports, mln. USD	270,7	250,8	448,3	465,4	394,0	387,8
in % to previous year	7,2	7,4	78,7	3,8	15,4	1,6
Balance, mln. USD	991,2	924,4	1099,7	1450,8	933,3	1071,7
Export-import coverage ratio	4,66	4,68	3,45	4,12	3,36	3,76

Source: (Ukrmetprom, 2021)

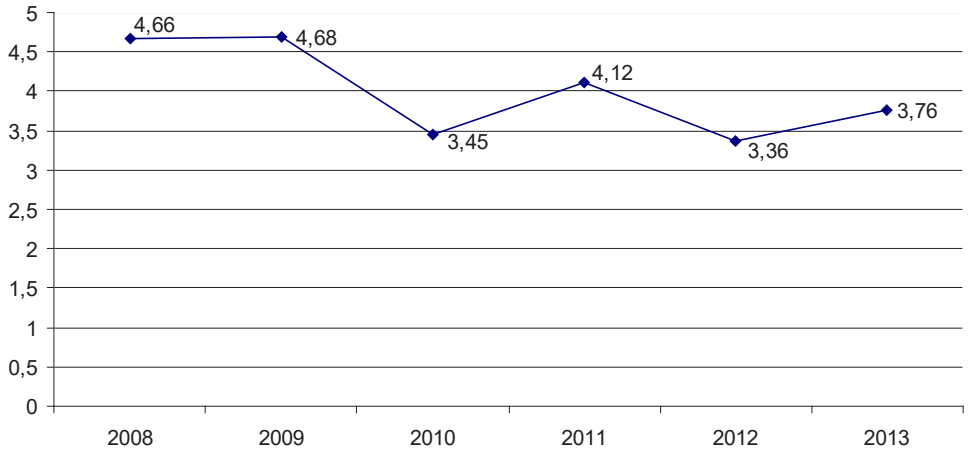

Figure 2. Dynamics of export-import coverage ratio in metallurgical complex

Source: (Ukrmetprom, 2021)

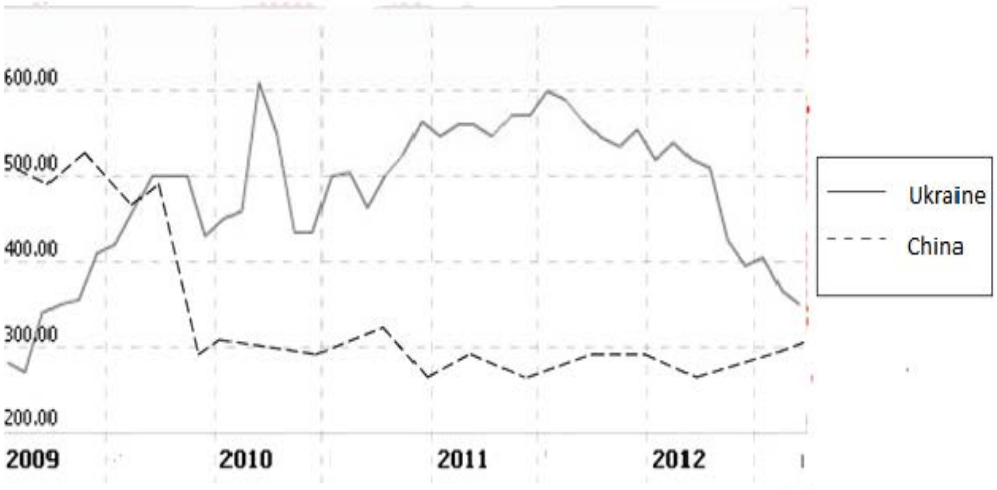

Figure 3. Prices for the metal in Ukraine (compared to China), USD/t

Source: (Problemi innovatsiyno-investitsiynogo rozvitku, 2013)

5. Conclusions

Foreign trade activity of the metallurgical complex is of strategic importance for the national economy. The main contribution of metallurgy makes to the budget was the main supplier of foreign exchange in Ukraine. Now, there is a decline in the production of metal products in comparison with the pre-crisis period of observations.

The efficiency of foreign trade activities of the metallurgical complex affects not only the macroeconomic indicators of the country's development, but also the welfare of the population, since the industry is the main source of foreign exchange earnings in Ukraine. Thus, the competitive strategy of foreign trade activities of domestic metallurgical exporters should include the development of a management mechanism based on a comprehensive modernization of its technical re-equipment, energy-saving technologies, and the introduction of new information technologies based on the blockchain. This will allow domestic producers of metallurgical products to shorten the supply and settlement chain to effectively compete in the global market and harmonize the interests of the company and its owners and minimize the risks of fraudulent transactions within the international business environment.

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APPROACHES TO AGRICULTURAL ENTERPRISES POSITIONING

Julia Subotina[1], Alexander Sergienko[2]

Abstract. With the development of market economic relations and the intensification of competition in Ukraine, the problem of adequate positioning of enterprises among competitors, as well as in the consumers` minds becomes relevant. The author summarizes scientific approaches of foreign and domestic scientists to the interpretation of the concept of "positioning", which are reflected in the following: F. Kotler (positioning as a way of identifying goods), J. Trout, E. Reiss (as a certain position of the enterprise among competing goods), Belyaeva N.S. (as an element of the enterprise strategic management system). Three basic components to understanding the essence of positioning are generalized and allocated: positioning as a concept that defines the ideological aspect in its definition (ideas and views), which are the basis of the enterprise product proposal; positioning as a strategy that involves the development of a competitive position of the enterprise product and the relevant marketing complex; positioning as a set of actions that characterizes a set of measures, specific ways to convey the position to the target segment in the implementation of marketing programs; so it is a set of tools to help forming a brand image that should strongly differ from competitors. Due to the fact that the agricultural component is important to the Ukrainian economy development, it is necessary to ensure the effective positioning of agricultural enterprises in foreign markets, which is the source of their sustainable competitive advantage. The opinions of Ukrainian scientists on the agricultural enterprises products positioning were summarized: Kozak L.V., who proposes strategies for the agricultural enterprises development; Kosharna P.S., who offers strategic tools for the agricultural enterprises; Artyukhova K.V. and Bondarenko V.V., who substantiate the necessary market position of agricultural enterprises. Approaches and factors for positioning of agricultural products that should be taken into account in the foreign economic activity of enterprises such as planning, staff, practice, partners that can strengthen opportunities, positioning, protection are analyzed. Peculiarities of agricultural enterprises products positioning were determined: production seasonality, high level of natural and climatic conditions dependence, role and value of products, variety of management organizational forms, time discrepancy in finished products growing and manufacturing, level of state participation in agro-industrial complex development. The author has formed a structural and logistical scheme of agricultural enterprises product positioning, which has the following main elements: purpose, means, conditions of activity, support (including the development of enterprise products positioning strategy) and marketing tools. The main marketing tools that must be used in positioning the products of agricultural enterprises include: the type of product, its quality, functional properties, type of packaging, guarantees; price formation conditions; logistics sales channels used in the delivery of products to the customer; products promotion; qualification of the personnel carrying out marketing support of agricultural enterprises production.

Key words: positioning, positioning of agricultural products, marketing strategy, positioning factors, positions of enterprises.

JEL Classification: Q13, Q16, P13

1. Introduction

One of the most effective areas in the activities of any company is the positioning of its product on the market. Positioning is an activity to ensure the product's competitive position in the market and the development of a detailed marketing mix. Many companies, starting their business and using marketing for the first time, successfully apply this direction. It is no secret that the correct and competent positioning of the product in relation to competing products allows

Corresponding author:
[1] Cherkasy State Technological University, Ukraine.
E-mail: jul.subotina@gmail.com
ORCID: https://orcid.org/0000-0003-3717-3231
[2] Cherkasy State Technological University, Ukraine.
E-mail: sergienko07@ukr.net
ORCID: https://orcid.org/0000-0001-5061-4287

it to provide current positions that bring significant profits. An important step in choosing the direction of market orientation of the organization is to determine the position of the product in individual market segments. Product positioning primarily refers to the definition of a certain group of consumers, target market segments, relative to the most important properties of the product. It characterizes the place that a particular product occupies in the minds of consumers in relation to the product of competitors. The product must be perceived by a certain group of target consumers as a clear image, which distinguishes it from the products of competitors. Of course, you must also take into account the fact that the position of the product is influenced by the reputation and image of the company as a whole. The positioning of the product, therefore, is that, based on consumer assessments in the market of a particular product, to choose such product parameters and elements of the marketing mix, which in terms of target consumers will provide the product with competitive advantages.

The issue of positioning of Ukrainian agricultural enterprises engaged in the sale of agricultural products is becoming increasingly important. It is important not only to expand the influence in the domestic market, but also to penetrate and conquer foreign markets. Effective positioning of the company shapes its image and success in the markets. Positioning, as a component of marketing, determines the need for detailed theoretical and practical research, given the lack of sufficient thorough work on this issue by domestic scientists and, accordingly, the lack of foundation for the practical implementation of this element of marketing policy.

2. Review of literature sources in accordance with the research issues

A large number of researchers are currently dealing with the positioning of enterprises in the markets, as the marketing program is an integral part of the company's sales policy. At the same time, many works of scientists are devoted to the positioning of agricultural products. In particular, one of the leading scientists engaged in marketing positioning of the enterprise is Kozak L.V. (Kozak, 2014), who in his works considers theoretical and methodological approaches to the formation of strategic vision and goals of positioning products of agricultural enterprises, the formation of strategies for agricultural enterprises positioning products and world markets. The research of Kosharna P.S. (Kosharna, 2015) on the formation of strategic tools for positioning the products of agricultural enterprises, Artyukhova K. V. and Bondarenko V.V. (Artyukhova, Bondarenko 2015) – on the formation of the market position of agricultural enterprises, Petryk O. O. (Petryk, 2016) – on the formation of an enterprise competitive positioning strategy in foreign markets, Belyaeva N. S. (Belyaeva, 2016) – on strategic positioning as an element of strategic management of the enterprise, F. Kotler (Kotler, 2002) – positioning is a set of measures by which in the minds of target customers the product in relation to competing products occupies its own, different from others and profitable for the company, the way in which consumers identify a product by its most important characteristics, J. Trout and E. Rice (Trout, Rice, 2004) – the creation of a product certain position among competing products, a kind of niche that would be reflected in the hierarchy o f values created in the minds of potential buyers. In these works, a study of the positioning basics of Ukrainian enterprises in foreign markets is initiated mainly from a theoretical point of view, identified features of agricultural enterprises positioning in general and individual sectors of agriculture in particular. To date, the issue of positioning the products of Ukrainian agricultural enterprises in international markets can be considered fully open.

3. Theoretical basis for the formation of enterprise positioning

The generalization of the main approaches to understanding the category of "positioning" made it possible to identify the following features. First, positioning is more a long-term strategy than a short-term tactic. Properly selected positions are stable, protected and adapted to the conditions and future development. They are able to evolve and change at the stages of the life cycle of a product, brand, firm. Second, positioning occurs in the minds of consumers, and therefore, it is what the consumer thinks about the company, product or service. Third, positioning is based on the benefits that the consumer receives from the purchase of goods or a partner from cooperation with the company. Fourth, because positioning is based on benefit, and because different customers often look for different benefits from buying, using, in fact, similar products and services, the position of an individual product in the perception of one buyer may differ from the position of this the product itself from another buyer. Finally, positioning is a relative concept. Products and brands occupy positions relative to competing products and brands.

The founders of the theory of positioning defined it as "the creation of a certain position for the product among competing products, a kind of niche that would be reflected in the hierarchy of values created in the minds of potential buyers, the development of such an image of the product. competing products (Trout, Rice, 2004). The basic principle of positioning, in their opinion, is not to create something new and different from others, but to manipulate thoughts that already lives in the minds of consumers, to use existing connections.

Positioning was a fashionable expression in advertising and marketing circles in the 1970s, and the word "positioning" characterized the development of advertising. That is, in essence, positioning was originally used as a tool to improve the effectiveness of advertising or the process of identifying the competitive advantages of the company's products and their subsequent use in promotions and other aspects of promotion.

After 15 years of the predominance of the positioning theory of Ella Rice and Jack Trout, a lot of work has appeared on the concept of "positioning". However, despite numerous publications (in the United States alone over the last 30 years, more than a hundred major papers have been published on positioning), there is still no consensus among marketing practitioners and theorists on what positioning is. This is confirmed by the description of the current state of understanding the term, given by P. Bainsfeir: "Positioning – a word that is used by all but few understand" (Bainsfeir, 1990).

Considering the concepts of "positioning" presented in the modern theory of interpretation, the author identified three of its basic components: positioning as a set of actions; positioning as a concept; positioning as a strategy. The content of these components is summarized in table 1.

Positioning as a concept is considered in the works of E. Rice and D. Trout – the founders of the concept, who said that it is important to build positioning on a strong concept, it will distinguish the company from a number of competitors.

This approach includes the ideas of David Krevens, who defines positioning as the formulation of the essence of the company's offer, which indicates the ability of the organization to meet the needs and preferences of consumers (Krevens, 2003). The concept of positioning should be based on the reasons why customers prefer to do business with it, rather than its competitors, and broadcast these reasons to the target audience.

The essence of positioning according to this approach is to formulate the essence of the company's proposal (concept) taking into account the needs of the target segment, the expectations of other groups and the understanding of the benefits for the company itself.

Positioning as a strategy. According to this approach, positioning is defined as the process of developing a competitive position for a product and the relevant marketing complex.

F. Kotler in his works on marketing defines positioning as a process by which a product is distinguished by consumers by its main characteristics, ie the place that this product, according to consumers, occupies compared to similar products offered by competitors (Kotler, 2002).

Consumers are overwhelmed with information about goods and services, they cannot evaluate every offer every time they make a purchase decision. To simplify the procedure for making a purchase decision, consumers divide goods and services into different categories, ie they mentally "position" the products offered to them.

David Aaker defines positioning as the process of creating image and value in consumers mind from the target audience so that they understand why there is a company or brand compared to competitors (Aaker, 1995).

Hooley Graham follows a similar approach, believing that positioning is a thoughtful, proactive and repetitive process of determining, measuring, modifying and monitoring consumer perception of the object that is exposed to marketing influence (Graham, 2005).

Thus, based on these formulations, as well as on the general economic and managerial interpretation of the term "strategy" (plan to achieve long-term goals), we can conclude that positioning is characterized as a long-term process (strategy) aimed at achieving and maintaining the desired competitive position. market.

T. Ambler describes positioning as a set of actions. This approach characterizes positioning as a set of measures, specific ways to convey the position to the target segment during the implementation of marketing programs, as follows: it is a set of tools to help form a brand image, and this image should be as different as possible from competitors' brands. use both real and imaginary characteristics of the product or service (Ambler, 2006).

S. Garkavenko defines positioning as marketing efforts of the corporation to develop and implement in the minds of target consumers a special image of the company, product, service, which differs from what competitors offer (Garkavenko, 2002).

Thus, the essence of this approach is that positioning is seen as a set of elements of communication policy that are perceived by the consumer. If each proposal

Table 1

Components of the "positioning"

Components	Content
Conceptual (positioning as a concept)	*Reflects the ideological aspect in the definition of positioning as a system of ideas, views (formulation of the proposal essence)*
Strategic (positioning as a strategy)	*Considers positioning as a strategy (methodology for competitive position developing)*
Functional (positioning as a set of actions)	*Defines positioning as a set of actions or a set of measures (a set of marketing tools and actions)*

Source: compiled by (Trout, Rice, 2004; Bainsfeir, 1990; Krevens, 2003; Kotler, 2002; Aaker, 1995; Graham, 2005; Ambler, 2006)

occupies a certain position in the minds of the client, then positioning is a policy of influencing the perception of this proposal.

4. Marketing tools for product positioning of agricultural enterprises

In modern conditions of economic instability, the problem of using positioning in the management of agricultural enterprises becomes especially important. Modern entrepreneurial activity is characterized by a high degree of competition in the market, which requires agricultural enterprises to pay more attention to ensuring their competitiveness. In addition, the Ukrainian agro-industrial complex, being one of the main sectors of the national economy, due to the specifics of its economic and production activities, depends on many other sectors of the economy. This problem in the agro-industrial complex of Ukraine negatively affects the pace of development of this complex. The solution of the above problems depends on how correctly and economically justified agricultural enterprises will develop or select their competitive product positioning strategies. They can increase the efficiency of economic and marketing activities of agricultural enterprises, as well as ensure high competitiveness in the domestic and foreign markets.

To achieve this goal, the company must develop a set of marketing tools, which should ensure effective positioning of the company and its products in the target market. It is necessary to provide a systematic approach to the formation of strategies for positioning individual elements of the marketing complex: to agree on their goals and general direction. Effective positioning and development of an appropriate marketing complex for the target market is a source of sustainable competitive advantage of the enterprise in this market.

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To position agricultural products, companies must emphasize the distinctive features of their product, or try to create an appropriate image through a marketing combination. As soon as the company takes a leading position, it becomes competitive. In the foreign market there are factors "6P", which should be taken into account during the foreign economic activity of the enterprise (Kharenko, Bobko, 2016):

1) planning – business, market, sales strategies, etc.;
2) staff – identifying the necessary skills for development and delivering the product;
3) practice – business practice within the culture of the target market;
4) partners who can strengthen opportunities;
5) positioning – how the company wants to be perceived by intermediaries and customers;
6) protection – assessment of potential risks in all aspects of the enterprise.

Therefore, we see that the company's positioning in terms of this approach is a significant factor in the competitiveness of the enterprise. Positioning is one of the most powerful marketing concepts. Initially, product-oriented positioning became increasingly popular, including the creation of product image and ranking among competitors' products. First of all, we are talking about "the place that the brand occupies in its target audience subconscious".

Product positioning is often used as a tool to enter foreign markets. There is no single interpretation of the enterprise "market position" concept or product in the foreign literature on product marketing management. If foreign authors widely use the category of the enterprise market position during the study of effective sales management, then for domestic researchers is more typical to use the conceptual apparatus of product positioning, as a result of market segmentation by commodity price or consumer criteria (Kozak, 2015).

The organization of agricultural enterprises product positioning is carried out taking into account the peculiarities of agriculture, namely: seasonality of production, high level of dependence on climatic conditions, role and importance of products, diversity of management organizational forms, time discrepancy in growing and manufacturing finished products, level of state participation in the complex development, etc. (Lohosha, 2018).

In the conditions of constant competition aggravation, there is a need for positioning of the enterprise production. Quite a clear and comprehensive definition of positioning offers Kozak L.V., as a direction of future product development in the market on the basis of initially formed consumer value, able to most effectively meet the needs of consumers. In addition, in accordance with the modern concept of multi-attribution, the product acquires unique properties through a professional symbiosis of its functional and associative qualities that meet the needs of consumers (Kozak, 2015).

Figure 1 shows the structural and logical scheme of agricultural enterprises product positioning.

The products of agricultural enterprises should be considered not only in accordance with standard qualities (satisfaction of food needs), but also as services and ideas. It is important to offer ideas that promote care for the environment, care for safe and healthy food for customers.

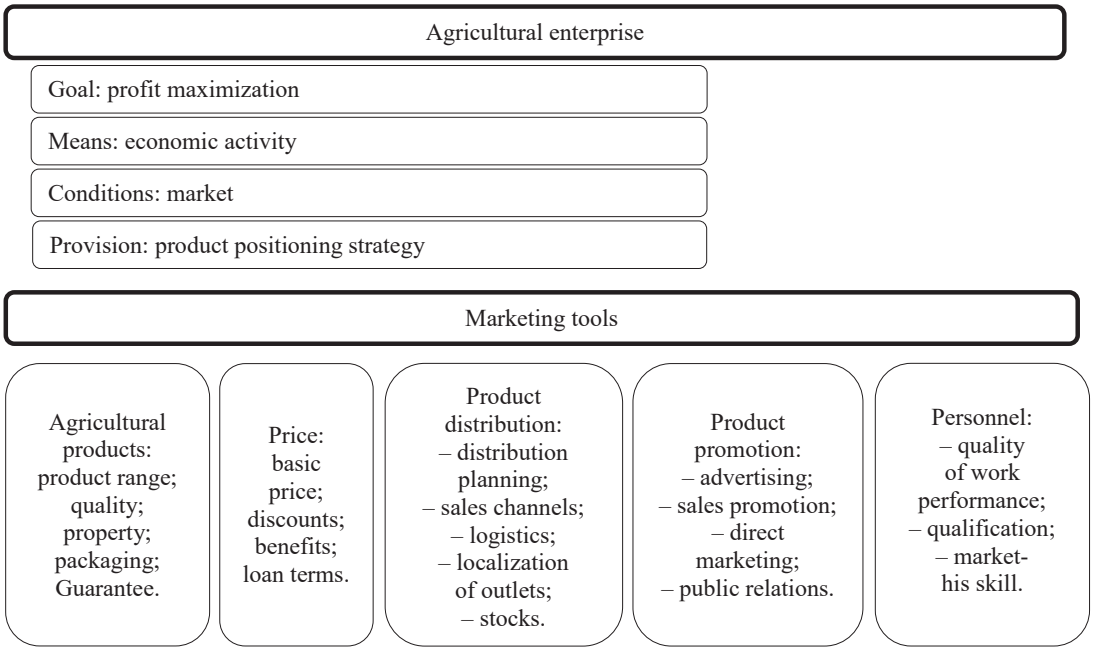

Figure 1. Structural and logical scheme of product positioning of agricultural enterprises

Source: built by the author according to the data (Dudar, 2017; Krevens, 2003)

5. Conclusions

Summing up, we note: positioning – is one of the most important marketing processes, which determines the adequate market position of the product or enterprise as a whole. Positioning is characterized by multifaceted actions and requires separate consideration; tactics indicate the relationship with the marketing mix, and in the latter the main role is given to promotion. Because positioning is based on consumer value, which in any approach includes a category of quality, the article examines the nature and relationship of these important marketing categories. There is a close link between positioning and internal marketing, which stems from the relationship between the above categories.

The main approaches to understanding the category of "product positioning" are considered and the characteristic features and components of the agricultural enterprises product positioning strategy are highlighted. While creating a marketing strategy for positioning the agricultural enterprises products they should coordinate their potential to meet the end users needs in terms of range, quality and price; take into account the maximum use of their own competitive merits and weaknesses of opponents.

Achieving the goal of increasing sales in today's market competition without proper product positioning sometimes becomes an impossible task. Actually, this is the product positioning on the market. In fact, product positioning in the market is a search for new ways to consolidate the image of your brand or product in the minds of buyers, creating and developing models to promote products to increase sales activity.

The mechanism of agricultural enterprises products effective positioning provides for the integrity, unity, orderliness of all steps. The prospect of further research is to determine the methodological tools for selecting and implementing positioning strategies, as well as assessing the positioning effectiveness and providing forecasts on the possible consequences of their implementation.

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THE WORLD DEVELOPMENT OF THE DIGITAL ECONOMY: THE MAIN DEVELOPMENT STRATAGEMS

Olena Taranukha[1]

Abstract. The digital economy allows to compose the new business models, digital platforms and services, which create new types of economic activity, as well as the transformation of traditional industries. Due to the industries transformation to the digital economy there is the transformation of the world economy, or rather the economy itself is being digitized The purpose of the paper is to reveal the essence and features of the digital economy formation and to consider what significant transformations will take place in the world by the analysis of major trends in the near future. Accumulating all the concepts, we can say that the digital economy is the rather complex term, but we can assume that its development is based on the key components According to forecast estimates, the most advanced retail companies will begin implementing the service of virtual and voice search of goods by 2022. This will require from the company the better understanding of the consumers wishes, their interests and intentions. Consider the main technological development trends for 2020–2025 based on the data of the major consulting agencies and the consulting company "Cartner" Figure 2 shows the forecast curve of the new technologies development. Innovative development triggers that will actively influence the technology development include the following: the Authenticated Provenance, Low-Cost Single Board Computers at the Edge, Self-Supervised Learning, BMI (Brain Machine Interface), active development of "Packaged Business Capabilities" services, Digital Twin of the Person and Composible Enterprises. The peak of disappointments will be Social Distancing Technologies and Secure Access Service. The source of expectations will be the development of Carbon-Based transistors technology and Human digital Ontologies. The formation of a productivity platform will be based on trends in Self-Development and Self-Education. Digital IT trends grow, evolve and acquire new properties of social technologies that can influence the structure of the community, form dependencies and demand. Therefore, companies, large corporations and government need to move to more flexible composite business architectures. The modular business model is based on four basic principles: modularity, efficiency, continuous improvement and adaptive innovation. This business model allows to move from rigid traditional planning to a flexible response to rapidly changing business needs. In general, it creates opportunities for innovative approaches, reduces costs and improves partnerships. It is important to pay attention to the other technologies in the new business model such as bundled business services, data factories, private 5G networks and embedded artificial intelligence. Thus, as a result of the research it is proved that the digital world is a completely new order of life, which requires to change our thinking. The person should be always focused on the new technologies and methods in order the enterprises remain competitive and constantly developed, it will promote the economy development and the growth of well-being of the society. So, taking into account the global trends in technology development, Ukraine has to adapt to the new standards quickly and implement innovative solutions for the economic development. The digitalization of the economy, on the one hand, is the key to economic success, on the other hand, it is the driving force in the conditions of the conceptual understanding of the digital economy essence. The growth of the quality and innovation level of domestic goods and services should provide not only sustainable economic growth, but also competitive advantages with further integration into the EU. At the same time, there is the relevant need of the scientific and technological research, the formation of a certain business ("digital") culture, the implementation of smart city ideas in Ukraine based on the development of local communities and the emergence of new initiatives and proposals for innovative solutions.

Key words: Digital economy, digital components, digital trends, Cloud Technology, IIoT, Augmented Reality, Big Data, Spectrum Technology Platform, Hype Cycle Technologies.

JEL Classification: E27, D40, F55

Corresponding author:
[1] National Transport University, Ukraine.
E-mail: e.taranukha@ukr.net
ORCID: https://orcid.org/0000-0001-6787-0877

1. Introducation

The digital economy is becoming an integral part of the world economy. The core of the digital economy are undoubtedly the digital technologies. The digital economy allows to compose the new business models, digital platforms and services, which create new types of economic activity, as well as the transformation of traditional industries. Due to the industries transformation to the digital economy there is the transformation of the world economy, or rather the economy itself is being digitized. Modern economic conditions stimulate the investment to digital transformation, as emerging markets try to increase their demand for technology in order to stimulate further growth. At the same time developed markets are looking for the new ways to reduce costs and to introduce the innovations.

Therefore, the digital economy research will not only develop the digital potential of industries, but will also bring the economy to the new level with the ability to avoid a global crisis in the future. However, as digital technologies become more sophisticated and integrated, causing the transformation of society and the global economy, the issues of the digital technologies impact on the development of national and global economies remain insufficiently studied.

The purpose of the paper is to reveal the essence and features of the digital economy formation and to consider what significant transformations will take place in the world by the analysis of major trends in the near future.

In order to achieve the goal and solve the tasks we have used the general and specific research methods: abstract-logical method and critical analysis – to identify the essence of the concept of digital economy and its components; methods of analysis and synthesis, graphical and tabular methods – to assess key trends, and determine the main strategies of the world digital economy development for the next 2021–2023. The research results, conclusions and proposals have been substantiated by an integrated approach.

2. Methodology of research

The current wave of digital transformation unites the biological, material and digital worlds. The new concept has emerged – the digital economy. It is in our time that humanity on the base of accumulated knowledge of digital technologies during several decades, has approached the new qualitative leap: industry has become ready for the transition to fully automated production systems, the states has become ready and have the ability to provide services online (e-government), transport is preparing for the introduction of autonomous driving without drivers, the service sector is ready for the use of robots (Glaxo Smith Kline plc., 2019).

Analysis of recent publications. The issues of the digital economy impact have been researched in scientific works of the following researchers: B. Van Ark, R. Inclar, M. Timmer, D. Sifchlag, A. Krimes, R. Cleo, F. Stevins, T. Nibel, W. Isaacson, S. Brand, J. Wales, E. Williams, B. Gates, B. Elbrecht, D. Engelbart, J. Licklider, J. Von Neumann, E. Peters, S. Huntington, S. Haller. The problems of digital economy development and transformation processes were considered by Ukrainian and foreign scientists, in particular, V. Apalkova, S. Veretyuk, P. Drucker, S. Kolyadenko, I. Karcheva, B. King, R. Lipsi, L. Lyamin, I. Malik, V. Pilinsky, Y. Pivovarov, K. Skinner, E. Toffler, V. Fishchuk, K. Schwab and others.

Since the digital economy term has been appeared, many scholars and practitioners have made adjustments to the definition of this category. However, the definitions analysis (Karcheva, Ogorodnya, Openko, 2017; Deeva, Deleichuk, 2018; Kolyadenko, 2016; Skorobogatova, 2019) confirms our opinion that there are no significant differences between them. In most foreign sources, the emphasis

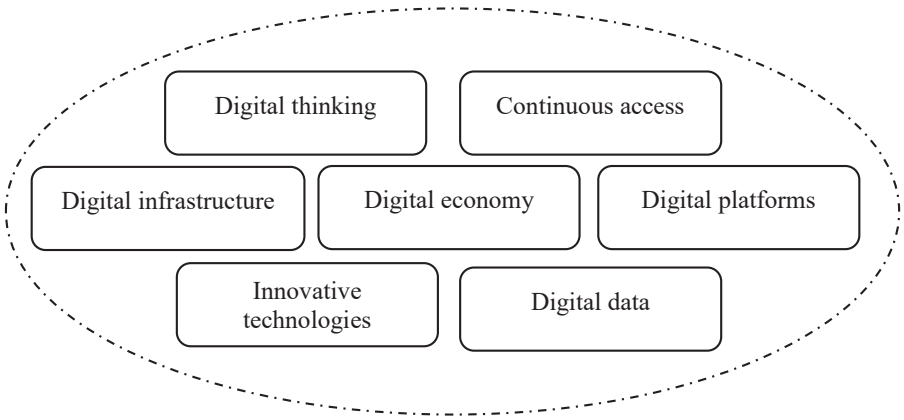

Figure 1. Key components that form the digital economy concept

Source: formed by the author

is made on the technologies and related changes in the ways in which economic agents interact (Miller, Claire, 2017; Readiness for the Future of Production Report, 2018; Glaxo Smith Kline plc., 2019). Specific types of technologies or some forms of changes in economic processes may be mentioned. The digital economy definition is often replaced by a list of areas of its impact on the economy and the social sphere.

Accumulating all the concepts, we can say that the digital economy is the rather complex term, but we can assume that its development is based on the key components presented in Figure 1.

The digitalization results are the higher productivity of business and communications, customer satisfaction increase, and in modern conditions, the rapid increase of the development efficiency and competitiveness. This is the major factor in development, because it requires constant progress and innovation.

3. Results and discussion

The leading scholars research concludes that identifying of the digital economy trends makes it possible to predict global market shifts in real time. It is important that such forecasts should help the heads of government departments, companies, financial advisors and top management of corporations consider future changes in business, industry or global development, using the tools of scenario and forecast analysis.

Undoubtedly, it will lead to the rethinking of the format of large technology corporations. Well-known technology giants such as the American corporations "Facebook", "Apple", "Amazon" and "Coogle", and the Chinese "Alibaba", "Baidu" and "Tencent" will start changing the format of their activities on their own initiative. These companies influence will become so significant that it will be increasingly difficult to develop new profit scenarios. In order to be ahead of potential competitors, corporations will have to "undermine" their own markets and change the game rules to take into account all relevant risks (Chuprina, Orozonova, 2020).

According to forecast estimates, the most advanced retail companies will begin implementing the service of virtual and voice search of goods by 2022. This will require from the company the better understanding of the consumers wishes, their interests and intentions. According to analysts of the consulting company "Cartner", the result of the innovations introduction can be the revenue increase of e-commerce platforms by 30%, the increase of the attracting new customers rates, customer satisfaction and market share (Reputation Institute, 2019).

Consider the main technological development trends for 2020–2025 based on the data of the major consulting agencies and the consulting company "Cartner" (Global RepTrak 100, 2019). The technological development features of the last decade allowed to define the following information trends of the modern world.

1. Active development of cloud services and technologies.

Cloud Technology provides the remote access, processing and storage of data on various devices. Their use eliminates the attachment to the workplace, which creates new opportunities in the labor market. They also provide a fundamentally new level of mobility and form the communities through the existence of private, public, hybrid "clouds".

2. The emergence of the Industrial Internet of Things – IIoT.

This is the concept of the computer network of physical objects ("things"), equipped with built-in technologies for interaction with each other or with the external environment. According to IDC more than 5.5 billion "smart devices" were used in the world in 2016. The contribution of the IIoT to the world economy could reach almost $ 14 trillion by 2030. Currently, sensors and chips are used in home appliances, transport, industrial or commercial equipment, information systems (cloud technology), banking, public places (parking, entertainment, tourism), media and other areas. Unfortunately, IIoT is becoming a social technology capable of forming addictions and phobias (fear of implant chips, etc.).

3. "Swarm Intellect" use.

This is the collective behavior of different objects, each of which performs a number of simple functions, interacting with other objects. Like a swarm of insects, bees or flocks of birds, information systems developed on the basis of this principle provide decentralized process management through the collective work of all its elements, which are self-organizing in the process. Swarm intellect technology can be used in unmanned vehicles, power grids and during military and rescue operations (unmanned aerial vehicles, drones, military sappers, rescue workers, etc.).

4. Augmented Reality technologies active use (AR).

AR simplify and shorten the process of new product creating by replacing physical prototypes with virtual models compatible with real devices, you can see engineering errors or improvements effects in the early stages. These technologies can reduce the impact of the human factor and equipment repair costs, increase productivity and competitiveness in the market. AR technologies are also used to coordinate the activities of departments and employees and even to create work instructions and technical publications.

5. Rapid development of Big Data technology.

Big Data technology collect all possible information about individuals (users of social networks, shoppers, subscribers of telephone and telecommunications operators, survey and census data, etc.) and make the cluster analysis of this information, ie its "breakdown"

into generalized types of behavioral patterns in which some preferences (for example, in food or clothing) correlate with others (for example, political), which allows you to predict the behavior of relevant groups of people in the right field with the help of some information about them. Big Data analyzes the behavioral patterns and predictions of the preferences of each individual Internet user in order to provide him the information that is likely to be close and interesting to him.

6. 3D printer technology use in various spheres of life.

This is a peripheral device that uses a layer-by-layer method of creating the physical object based on a digital 3D model. This technology makes it possible to build the complex technological facilities for various fields of activity from office to medicine cheaper and faster.

7. Spectrum Technology Platform active implementation.

The system of services provides on the constant basis the target block-message formation for an individual – at his request or adapting to his interests. This service not only greatly simplifies and facilitates the information search process and provides the quick access to the required resource, but it also meets the current socio-economic trends – getting the "full package of services", the so-called comprehensive service with all the necessary information at the right time, place. format, etc. Eventually, the consumer ceases to notice the extent to which his needs and choices belong to him.

8. Rapid development of an artificial intelligence technologies.

The property of intelligent systems to perform creative functions, which are traditionally considered as exclusively human ability.

9. Formation of the human information ecology format.

Due to the information amount increase, the issue of the information space pollution, information overload of the person becomes more and more actual. It becomes difficult to find the information you need in a huge stream. It is important not only to be able to operate with information and use the information resources, but also to be able to form an information worldview.

10. Formation of new standards of information security.

Today the individual and collective security demand is becoming a megatrend. The information security can be considered on several levels and in several manifestations, but the essence remains following: information is a dangerous weapon. Therefore, in the framework of this trend, researchers analyze the personal data access, technical means of data processing and transmission, computer systems, personal freedom protection and the right of personal information space.

The scientists also consider the information terrorism as a violent propaganda effect on the psyche, which unable the person to evaluate the received information critically. In addition to the use of official media, information terrorism is based on the spread of certain types of rumors. They strengthen the atmosphere of fear and terror created by terrorists.

Another aspect of this trend is cyberterrorism, which is defined by the researchers as an attack on information resources, intrusion into computer systems or networks which result in a threat to human life and health or in the occurrence of other serious consequences – violation of public safety, intimidation of the population, provocation of military conflict.

To the threats also belong the information or cyber-attacks – as independent influences and as components of a hybrid or information war. It is important to mantion not only the technical and technological component of such communication, but also the content, which is high-tech in terms of forms, methods of submission and the level of its thoughtfulness. Today, the fakes creation is very widespread that undermine the system of information regulation (the creation of "noise" does not allow to understand where are the facts and where are the fictions). (Robinson, 2007).

11. Development of the Blockchain and Bitcoin technologies.

This is a chain of formed blocks of transactions built according to the certain rules. Initially, the term meaned the distributed database of the cryptocurrency "Bitcoin". The World Wide Web uses Blockchain technology in order to manage the database that records Bitcoin transactions. The system operates in a decentralized manner, which means that the network operates on a user-to-user basis.

Figure 2 shows the forecast curve of the new technologies development. Innovative development triggers that will actively influence the technology development include the following: the Authenticated Provenance, Low-Cost Single Board Computers at the Edge, Self-Supervised Learning, BMI (Brain Machine Interface), active development of "Packaged Business Capabilities" services, Digital Twin of the Person and Composible Enterprises. The peak of disappointments will be Social Distancing Technologies and Secure Access Service. The source of expectations will be the development of Carbon-Based transistors technology and Human digital Ontologies. The formation of a productivity platform will be based on trends in Self-Development and Self-Education.

Digital IT trends grow, evolve and acquire new properties of social technologies that can influence the structure of the community, form dependencies and demand. Therefore, companies, large corporations and government need to move to more flexible composite business architectures (Martyniuk, 2020).

The modular business model is based on four basic principles: modularity, efficiency, continuous improvement and adaptive innovation. This business model allows to move from rigid traditional planning

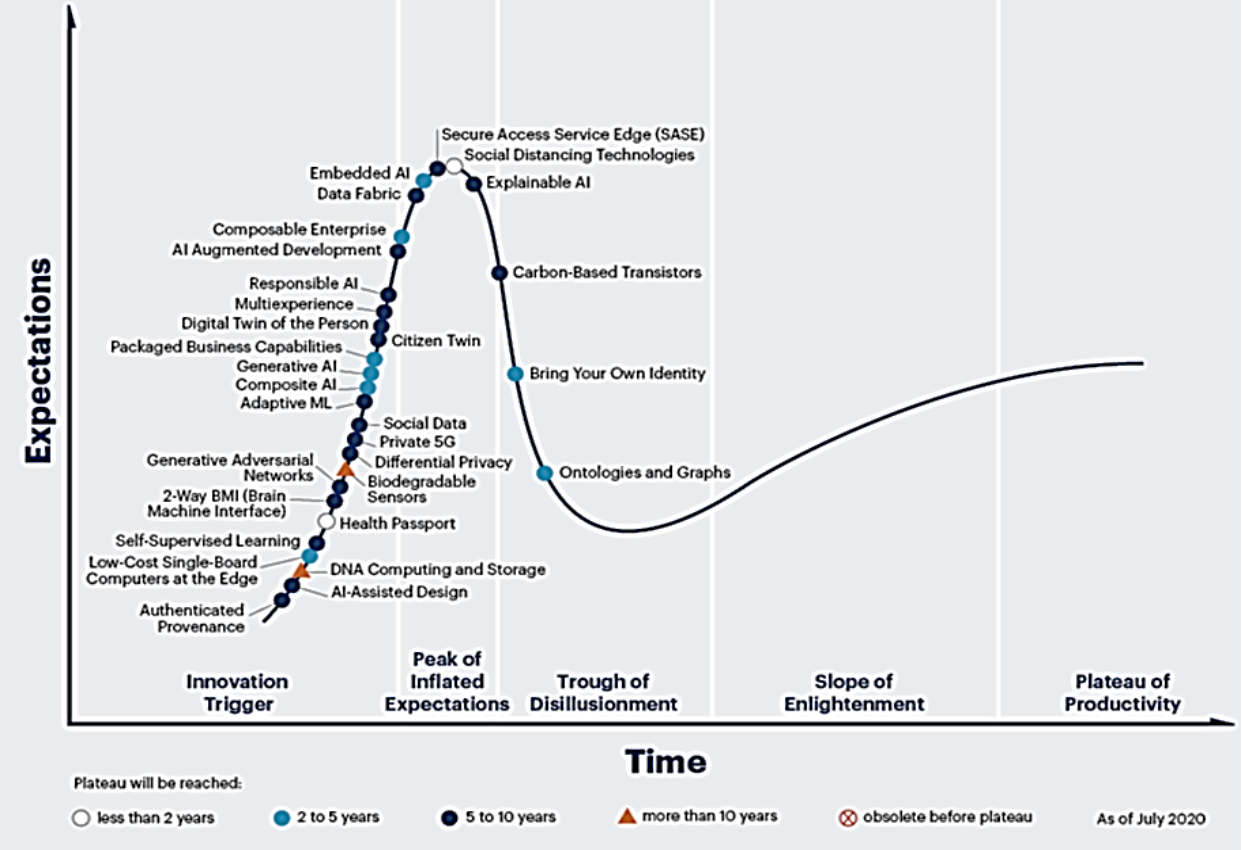

Figure 2. Hype Cycle for Emerging Technologies (2020)

Source: formed on the basis of (Chuprina, Orozonova, 2020)

to a flexible response to rapidly changing business needs. In general, it creates opportunities for innovative approaches, reduces costs and improves partnerships. It is important to pay attention to the other technologies in the new business model such as bundled business services, data factories, private 5G networks and embedded artificial intelligence.

4. Conclusions

Thus, as a result of the research it is proved that the digital world is a completely new order of life, which requires to change our thinking. The person should be always focused on the new technologies and methods in order the enterprises remain competitive and constantly developed, it will promote the economy development and the growth of well-being of the society.

So, taking into account the global trends in technology development, Ukraine has to adapt to the new standards quickly and implement innovative solutions for the economic development. The digitalization of the economy, on the one hand, is the key to economic success, on the other hand, it is the driving force in the conditions of the conceptual understanding of the digital economy essence. The growth of the quality and innovation level of domestic goods and services should provide not only sustainable economic growth, but also competitive advantages with further integration into the EU. At the same time, there is the relevant need of the scientific and technological research, the formation of a certain business ("digital") culture, the implementation of smart city ideas in Ukraine based on the development of local communities and the emergence of new initiatives and proposals for innovative solutions.

The implementation of these and other priorities will contribute to the restructuring and digitalization of the national economy sectors. It will increase the availability of the relevant services and products, the innovation level of which will continue to grow.

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SIMULATION MODELLING AS A TOOL FOR RISK ANALYSIS AND DEVELOPMENT OF STRATEGY TO INCREASE REAL ESTATE INCOME

Lesia Chubuk[1]

Abstract. *The purpose* of th article is to substantiate the possibility of applying methods for assessing the effectiveness and risks of investing for the analysis of income in the strategic management of real property. *Methodology.* The methodical bases of sensitivity analysis and simulation modeling of cash flows of real property income are stated. *Results*. The critical factors of costs and revenues affecting net present value of total cash flow from grain elevator real property object have been revealed. It is evidenced that the most significant factors influencing the amount of cash flows are the volume of sales of grain elevator services, to a lesser extent the total costs and the lack of sensitivity of net present value to staff salary variations. Simulation modeling of the change in net present value due to the change of the most significant uncertain factors was performed, which confirmed the assumptions about the efficiency of the investigated real property. The key factors are the main services that generate net operating income and critical expenses. Namely, services: storage, drying, shipment by road and rail, costs: fuel for drying, electricity, fuel for transportation of grain, staff salaries. For each factor, the relevant limits of change were established (determined by experts taking into account the average annual growth rate of the indicator) and cash flow simulation was performed. *Practical implications*. Statistical analysis of the model's behavior under the influence of random factors shows that the most probable value of the net present value of cash flows will be positive, despite the simulation of a significant change (+/– 40%) in electricity and fuel consumption factors for grain transportation. The values of the simple and discounted payback period also confirm the efficiency of the elevator property functioning. The indicator of the stability level demonstrate the need of planning input cash flows sources to cover the output cash flows. *Value/originality*. The expected profitability of grain elevator real property is largely determined by the factor of the volume of basic services sales (storage, drying, shipment and transport of products). This creates the preconditions for the subsequent assessment of the value of grain elevator real property based on the methodology of the income approach.

Key words: strategic real property income management, sensitivity analysis, simulation modeling method, cash flows, net operating income, net present value, grain elevator real property.

JEL Classification: L21, O22, E27

1. Introduction

Real estate is one of the main types of resources of the enterprise, occupying a significant part in their structure and acting as a consumer good, means of production, investment goods and financial assets. However, as studies of the evolution of concepts and the development of real estate management, real estate management only from the 90s of the twentieth century began to be considered as part of strategic management. Strategic real estate management is subordinated to the general goal of ensuring the realization of business goals in the long run perspective the most efficient use of long-term real estate assets at minimal cost. The basis for the implementation of strategic management is a strategy as a set of long-term actions aimed at: establishing compliance between the characteristics of the property and the opportunities that determine its position in the market and in the real estate portfolio; maintaining competitive positions in the market; development (development) of real estate as a whole or its individual parts.

From the point of view of the real estate efficiency as the property, it is accepted that allocating kinds of management strategies focuses mainly on the following purposes:

Corresponding author:
[1] Taras Shevchenko National University of Kyiv, Ukraine.
E-mail: L_Chubuk@ukr.net
ORCID: https://orcid.org/0000-0003-2217-7117

– increasing of capitalization and/or market value of the real estate object;
– maximizing the cash flow of income from the use of real estate in the short term, minimizing the cash flow of costs;
– ensuring a stable cash flow of income from the use of real estate for a long period of time;
– using of real estate for production or social purposes, removal of its useful properties.

The issues of increasing real property income, in particular, net cash flows and net operating income, along with reducing costs and maximizing value are of great practical importance in the process of strategic real property management.

At the time of managing real property, choosing investment alternatives, developing management strategies, there is a need to assess the effectiveness of real property investments and cash flows from real property, and therefore there are prerequisites for using methods of assessing efficiency and risk based on discounting techniques and dynamic investment analysis.

2. Literature review

Publications of some national scientists are devoted to the issue of strategic cost and profit management of enterprises (Prodanchuk, 2012; Skibenko & Chimeris, 2011; Tyutyunnyk S. & Tyutyunnyk Yu., 2016; Vlasenko & Starodubtseva, 2018). However, these works focus mainly on the theoretical aspects of the study of strategic management of the enterprise as a whole, without detailing the management strategies of certain important types of assets and property of the enterprise, especially real property. Today in the scientific literature are almost not studied as highly specialized issues of application of risk analysis methods in assessing the effectiveness of grain elevator real property, however, they are of great practical importance. In practice, it is traditionally preferred to take into account the static indicators of efficiency assessment (profit after payment of interest and taxes, investment rate, specific investment income per unit of storage capacity, simple payback period). However, there is a need to use in the study of efficiency and in the development of management strategies indicators, based on the technique of discounting, supplementing such an assessment by risk analysis. First of all, the indicators of net present value of cash flows from real property and present value of net operating income are required to be more widely introduced in the field of grain elevator real property profitability analysis. These indicators are traditionally not only the basis for estimating the value by discounting, but are used to evaluate real options and build optimal strategies (Hitchner, 2006, pp. 1119, 1121; Pratt & Niculita, 2008, pp. 516, 518–519; Manganelli, 2015, pp. 121–135, 137–188).

The purpose of the research material – demonstrate the possibilities and advantages of using methods to assess the effectiveness and analysis of investment risks, in particular, simulation modeling method to justify areas of increasing in real property income in strategic management.

3. Methods

The development of strategies to increase net cash flow and net operating income through the use of real property is based on identified factors and income growth potential through methods of assessing effectiveness and risks: sensitivity analysis, scenario analysis (or decision tree), simulation modeling method end so on.

3.1. Sensitivity analysis method

The method of sensitivity analysis is one of the basic methods of quantitative risk analysis, which consists in changing the values of critical parameters, substituting them into the financial model of the object and calculating the key performance indicators of the property at each change.

The sequence of sensitivity analysis in the general case is as follows (Savchuk, 2020, pp. 400–401; Dmitriev & Koshechkin, 2001, pp. 28–29).

1. Selection of a key indicator of investment efficiency (most often – NPV).

2. The choice of factors in relation to which the developer of the investment project does not have the same judgment (i.e. is in a state of uncertainty). The following factors are typical: capital investments and working capital; market factors – the price of goods and sales; components of the cost of products, services; time of construction and commissioning of fixed assets, etc.

3. Establishment of nominal and limit (lower and upper) values of uncertain factors selected in the previous step of the procedure. There can be several limit values, for example, +/– 5%, +/– 10% of the nominal value.

4. Calculation of the key indicator for all selected limit values of uncertain factors.

5. Plotting the sensitivity graph for all uncertain factors. This graph and/or the calculated coefficient of elasticity of the key performance indicator for each individual uncertain factor allows us to make inferences about the most critical factors that are affecting the operation of the facility. The aim is to pay the greatest attention to these factors in order to reduce risks. The advantages of the method are the clarity of the results, the possibility of implementation using software. The disadvantage is the separate analysis of the influence of factors on the key performance indicator, while in reality such influence is simultaneous.

3.2. Simulation modeling method

Simulation modeling method (Monte Carlo method) is a procedure by which a mathematical model for determining a certain financial indicator (in particular, the net present value of cash flows from real property) is subjected to a number of simulations using a computer (Manganelli, 2015, pp. 160–162; Savchuk, 2020, pp. 402–404; Blank, 2003, pp. 291–292). The analysis process can be divided into the following stages (Figure 1).

During the simulation process, sequential scenarios are built using the original data, which are uncertain, based on the context of the situation, and therefore in the analysis they are taken as random variables. The simulation process is performed in such a way that the random selection of values from certain probability distributions does not violate the existence of known or assumed correlation relations among variables. The results of the simulation are summarized and analyzed statistically, in particular, in order to assess the degree of risk.

The first stage in the process of simulation is the creation of a predictive model. This model determines the mathematical relationships between numerical variables that relate to the forecast of the selected indicator. As a basic model for the analysis of the efficiency of real property use (income generation) will be used the model of cash flow and the calculation of net present value (NPV):

$$NPV = \sum_{t=0}^{N} \frac{CF_t}{(1+i)^t}, \quad (1)$$

were CF_t – net cash flow, the difference between input flows and output flows of real estate object (UAH);

i – annual discount rate (units per unit);

t – calculation period (years), $t = 0 \ldots N$.

In the simulation process, the values of the variables are chosen randomly within the specified ranges and in accordance with the probability distribution and correlation conditions. Generation of random numbers application packages are carried out according to a certain algorithm. The peculiarity of software data processing is that correlated random numbers are generated. For each set of such variables, the value of the performance indicator (use of the real property object) is calculated. All obtained values are stored for further statistical processing.

The final stage of risk analysis is the processing and interpretation of the results obtained at the stage of model calculations. Each individual calculation (experiment) is characterized by the probability of the event, which is equal to:

$$p = 100/n \quad (2)$$

where p – probability of single calculation (experiment);

n – sample size.

When modeling the net present value of cash flow from the use of real estate, it is advisable to use the

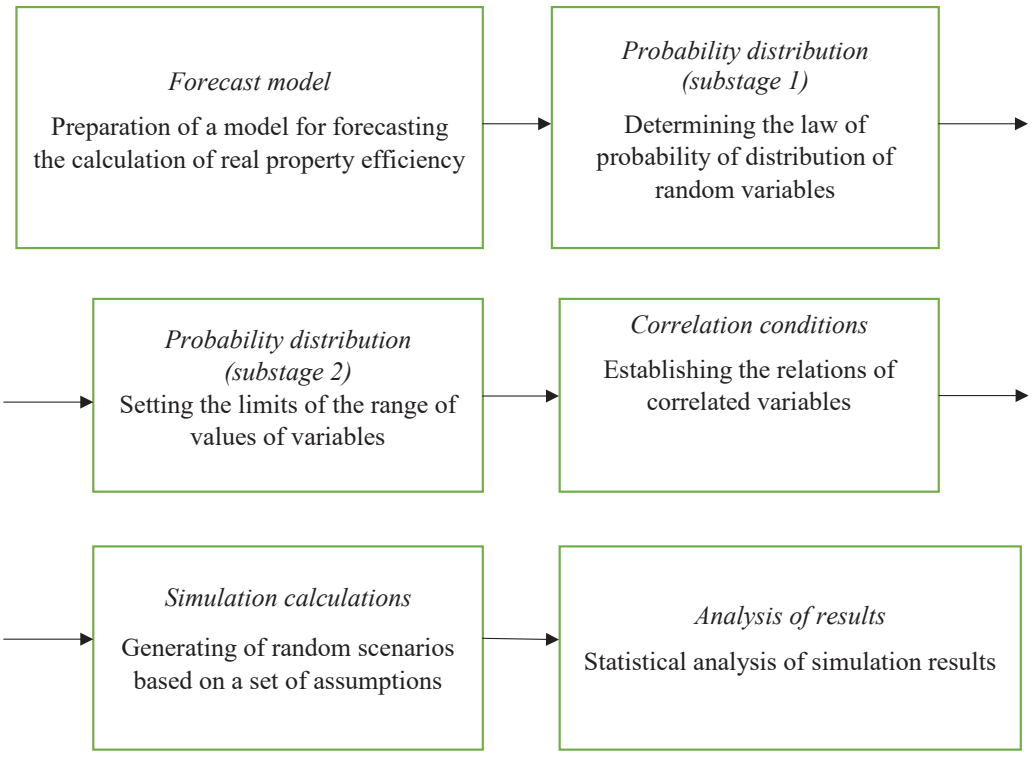

Figure 1. Stages of the process of simulation of real property efficiency

Sourse: compiled based on (Savchuk, 2020, p. 403; Blank, 2003, p. 292)

probability of obtaining a negative value of NPV as a measure of risk. This probability is calculated based on statistical results of simulation as the product of the number of results with a negative value and the probability of a single calculation (experiment).

After performing several hundred calculations, a set of NPV values is obtained, for which the average value (m) is calculated, as well as the risk indicator (standard deviation, d). According to the statistical rule of three sigma, the value of NPV should be in the following intervals:
– with a probability of 68,3% – in the range ($\overline{NPV}$) ±d;
– with a probability of 94,5% – in the range ($\overline{NPV}$) ±2d;
– with a probability of 99,7% – in the range ($\overline{NPV}$) ±3d.

4. Results

4.1. Sensitivity analysis of the net present value of cash flows to income and expense factors

The sensitivity analysis of the net present value of cash flows to changes in income and expense factors was performed on the basis of the cash flow model (formed by the equity scheme) from income and expenses of rain elevator real property of "Zernokompleks "Sivash" LLC (Kozyatyn, Vinnytsia region). This company is part of the association of "Tessla Group" companies («Tesslagroupe». Kompanii, 2020). Elevator real estate has significant features in valuation, as these objects are simultaneously operating business, integral property complexes and it is impossible to separate real property cash flows from business cash flows for such objects (except in the case of renting). In the formation of the model of total cash flow from all activities, the data of the operational reporting of the enterprise for the five-year period (from 2015–2016 marketing year to 2019–2020) and the forecast for 2020–2021 were used. For reference, the main characteristics of the studied elevator property are as follows: fair value (property purchased in 2010) – $3.2 million (UAH 25.92 million), capacity is 53 thousand tons, annual turnover for 2015–2016 is 60 thousand tons (1.13 times per year), there are significant costs for equipment and repairs during 2015–2018 , which were associated with the construction of a warehouse with a capacity of 8 thousand tons of grain.

According to the initial data on the construction of cash flows from the grain elevator property (for years 2015–2021), a sensitivity analysis of income and expense factors for the retrospective and forecast period as a whole was done using Project Expert software. The actual values of tax rates (income tax, value added tax, single social contribution) were used for calculations. The discount rate was chosen as 16%, which corresponds to the level of the average market deposit rate on long-term deposits for businesses for the year of the study (2015) according to the National Bank of Ukraine.

The results of the sensitivity analysis demonstrates in Table 1–2. The volume of sales of services (sales price), general expenses, staff salaries and tax rates were chosen as uncertain factors for sensitivity analysis in the model.

Calculations shows that the volume of sales of grain elevator real property services is the most significant factor influencing the amount of cash flows. Reducing sales by 30% from the regulatory (baseline) level causes a negative value of cash flow at constant fixed costs and becomes critical for the efficiency of the grain elevator property. Based on the value of the coefficient of elasticity of NPV on income, an income reduction by 1% causes a decrease in the present value of cash flows by approximately 3.88%.

When determining income targets for certain types of grain elevator real property services and total income, it is advisable to establish a specific relationship between the change in income and the present value of cash flows to develop a strategy. Thus, the prognostic function of real property management can be implemented.

Total costs as an uncertain factor taking into account the entire period of the initial data of the model shows a smaller degree of influence on the resulting present value of cash flows (for comparison: the coefficient of elasticity NPV to change costs in the analysis of cash flows only the first marketing year (2016–2016) is 14.21). According to the results of the calculation, the critical from the standpoint of loss of efficiency is the growth of total costs by 40% or more. The factor of salary loses priority according to the degree of influence; the coefficient of elasticity behind it becomes less than one, which indicates the insensitivity of net present cash flow to changes in salary. The factor of change in

Table 1
Change in the net present value of cash flows of the grain elevator property in 2015–2021 depending on changes in income and expense factors from 0 to -50%

Income/ expense factor	NPV, UAH					
	-50%	-40%	-30%	-20%	-10%	0%
Sales volume	-17767214	-10020531	-2871825	3874512	10352716	16811541
General expenses	35029985	31421075	27806195	24189519	20552376	16811541
Staff salary	21274879	20392810	19509868	18619797	17719112	16811541
Tax rates	21606502	20570048	19574134	18616529	17696083	16811541

Source: calculation according to the company LLC "Zernokompleks "Sivash" data (association of enterprises "Tessla Group")

Table 2

Change in the net present value of cash flows of the grain elevator property in 2015–2021 depending on changes in income and expense factors from 0 to + 50%

Income/ expense factor	NPV, UAH					Coefficient of elasticity (NPV / Factor of income (expenses))
	+10%	+20%	+30%	+40%	+50%	
Sales volume	23044678	29154287	35254339	41353402	47451949	3,88
General expenses	12902051	8982783	5001201	982155	-3116574	2,27
Staff salary	15893249	14966356	14040082	13114912	12191968	0,54
Tax rates	15961174	15135309	14337151	13569536	12829752	0,52

Source: calculation according to the company LLC "Zernokompleks "Sivash" data (association of enterprises "Tessla Group")

tax rates demonstrates the lack of significant impact on net present value.

Given the shortcomings of the method of sensitivity analysis (separation of the influence of factors on the resulting indicator), it should be considered only as a preliminary step in the study of income to develop a management strategy. To ensure the complexity of the study, changes in the profitability factors of a real property object should be considered in connection with changes in other uncertain factors, primarily costs, using the methods of scenario analysis, decision tree and simulation modeling method.

In the case when accurate estimates of risk parameters (as in the methods of scenario analysis or decision tree (probability tree)) cannot be set, and only the intervals of probable fluctuations of cash flow can be determined by experts, it is advisable to use the simulation modeling method (Monte Carlo method).

4.2. Simulation modeling of cash flows under the influence of changes in key factors of incomes and costs

To analyze the efficiency of the operation of elevator real property and to study the critical factors of income, simulation modeling method based on cash flows for the period 2015–2021 was used. Instead of unambiguous values of operating parameters, uncertainty intervals were set, based on the assumption of a uniform probability distribution on each of the intervals. According to the central limit theorem of probability theory, if the sample is large enough, then under certain, fairly common conditions, the sum of a set of random variables will follow the normal distribution regardless of the type of distribution of each individual random variable. Based on the default normal distribution in the software product Project Expert, the simulation of key factors was carried out and taking into account the obtained values, the indicators of economic efficiency were calculated. The key factors of calculation are the main services that form the net operating income and critical total costs, namely: the volume of grain storage services; volume of grain drying services; the volume of shipment services for road transport; the volume of shipment services for railway transport; fuel costs for drying; electricity costs; land lease costs; fuel costs for grain transportation; staff salaries.

For each factor in the software product Project Expert using the simulation module "Monte Carlo" the corresponding limits of change were set (determined by experts taking into account the average annual growth rate) (Table 3).

The results of simulation modeling (series of 500 calculations) are given in Table 4. The discount rate for calculations was chosen at the level of 16%.

Statistical analysis of the model's behavior under the influence of random factors shows that the most

Table 3

Limits of change in key factors for simulating modeling cash flows from a grain elevator property

№	Factor	Deviation, -%	Deviation, +%
1	2	3	4
1	The volume of grain storage services	-20	+20
2	The volume of grain drying services	-10	+10
3	The volume of grain shipment services for road transport	-20	+20
4	The volume of grain shipment services for railway transport	-20	+20
5	Fuel costs for drying	-40	+40
6	Electricity costs	-40	+40
7	The cost of renting land	-30	+30
8	Fuel costs for transportation	-30	+30
9	Salary	-30	+30

Source: complete by the author

Table 4
Indicators of efficiency and risks of operation of the grain elevator real property object in 2015–2022

№	Indicators of efficiency	Average value	Uncertainty (coefficient of variation)
1	Discounted payback period, months	28	0,28
2	Profitability index	4,43	0,17
3	Net present value of cash flows, UAH	16 787 479	0,14
4	Internal rate of return, %	119,82	0,22
5	Simple payback period, months	24	0,32
6	Average rate of return (accounting)	124,01	0,17
7	Modified internal rate of return, %	48,05	0,09

Source: calculation according to the company LLC "Zernokompleks "Sivash" data (association of enterprises "Tessla Group")

probable value of the net present value (NPV) of cash flows of real estate will fluctuate around the value ($\overline{NPV}$) =16 787 479 (UAH). According to the rule of three sigma, with a probability of 99.7%, the value of NPV will fit in the range ($\overline{NPV}$) ± 3d, even the lower limit of which will be positive (9,737 thousand – 23,838 thousand UAH). The distribution of NPV (95% confidence interval) is illustrated in Figer 2. In all 500 experiments, the value of the indicator is positive, and the uncertainty is 14%, which corresponds to a low level of risk (up to 20%).

5. Discussion

It should be noted that in this study, the increase in the number of simulations of NPV change (from 100 to 500) led to the approximation of the expected value to the value of NPV, obtained by the basic formula without taking into account the probability of risk. This can be interpreted as confirming the stability of the efficiency of a particular property. However, it is not obvious that in all cases more simulations are better in terms of improving the quality of the simulation results. The choice of the optimal number of experiments in modeling is at the discretion of the researcher.

When setting quantitative goals for the strategy of increasing income from elevator real estate, it is advisable to focus on the identified relationship between the increase in sales and changes in net present value of cash flows. A 1% increase in revenues from any of the basic services or a combination of them will cause an increase in NPV by 3.88%, which as a result of direct capitalization is equivalent to an increase in property value by 24.25% (at a capitalization rate of 16%). The latter conclusion indicates the possibility of applying sensitivity analysis and simulation modeling in value-based management. Thus, the scope of application of simulation modeling in economic research is wider than has been mostly stated so far (Wu &Olson, 2013).

The author identifies the following difficulties in the practical application of the simulation method (Monte Carlo method) for risk analysis and efficiency of real estate:

– complexity of collecting factual data to model for calculation of the performance indicators;

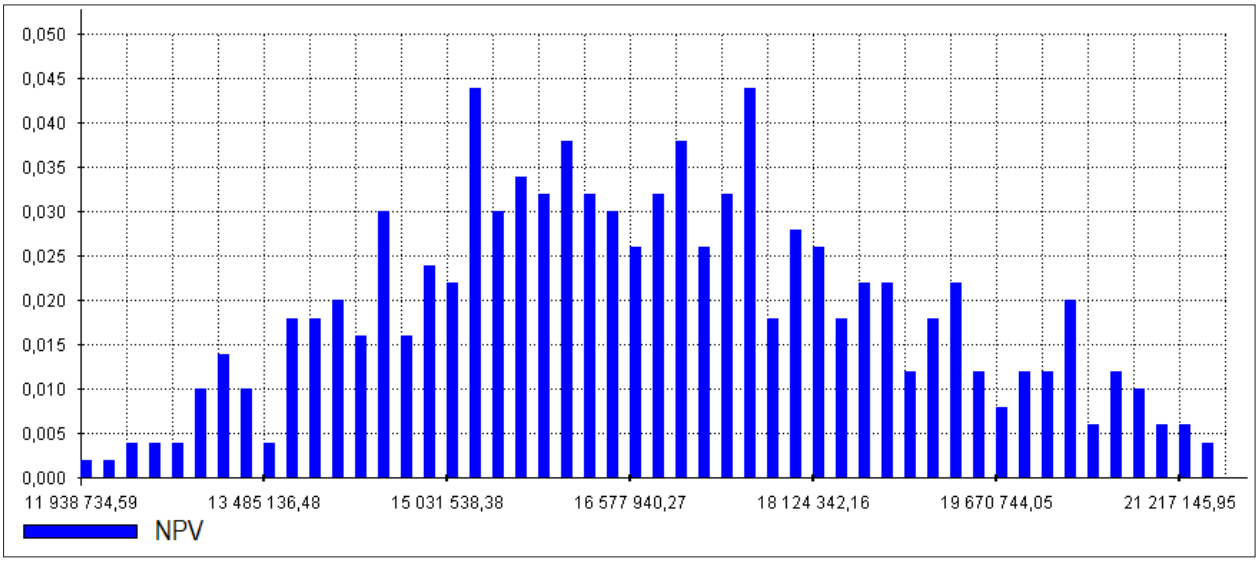

Figure 2. NPV distribution of the grain elevator real estate cash flow

Source: Simulation modelling (Monte Carlo method) in Project Expert

– problem of correlation of variables, which can lead to incorrect conclusions;
– accuracy of the result depends on the number of experiments performed ("runs" of the model), but their optimal number is unknown;
– complexity of detection, breadth of the list of key risk factors and choice of limits of their changes.

6. Conclusions

The operation of grain elevator real property in the studied model is generally efficient and characterized by a low degree of risk, because with a high probability NPV cash flow is positive, despite the imitation of a significant change in electricity and fuel consumption factors for grain transportation. The expected profitability is largely determined by the sales price factor (sales volume) of basic services – storage, drying and shipment by road and railway transport. The high value of the internal rate of return can be explained in particular by the fact that the cash flow model was built as cash flow to equity (excluding the financial cost of paying interest on loans). Simple and discounted payback periods also confirm the efficiency of operation of the researched object of grain elevator real property. The discounted payback period of investments in construction and purchase of equipment is 2.33 years, and the coefficient of variation on this indicator is within 30%, which indicates a generally acceptable level of risk.

Among the indicators of the model, which allow to diagnose problematic aspects of the operation of the object and the formation of cash flows – an indicator of the level of stability, which in this case is 0%. This indicator shows the share of calculations of their total number (as a percentage), which would not cause a shortage of cash and desynchronization of cash flows. Thus, randomly generated real estate cash flows in all cases require planning to cover cash outflows with sources of cash inflows.

The main measures that allows increasing the profitability of grain elevator real estate in strategic management are follows: raise the turnover of storage tanks, in particular by increasing the speed of shipment to transport; reduction in the cost of transportation; growth in sales volume of services (tariff increases, development of loyalty programs for customers).

Therefore, the use of methods for assessing the effectiveness and risks of investing in real estate based on the technique of discounting, in particular, sensitivity analysis and simulation modeling method is convenient and clear from an analytical point of view to develop a strategy for real estate income management.

Another positive aspect of using the simulation modeling method for the analysis of income from the operation of real property, the development of strategies to maximize them is the ability to assess the effectiveness (risks) at the stage of construction or acquisition of real property.

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Corresponding author:
[1] Taras Shevchenko National University of Kyiv, Ukraine.
E-mail: L_Chubuk@ukr.net
ORCID: https://orcid.org/0000-0003-2217-7117

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