ISSN 2518-1998 (Print)
ISSN 2663-5097 (Online)

BULLETIN
OF THE KARAGANDA UNIVERSITY

ECONOMY
Series

№ 1(101)/2021

ISSN 2518-1998 (Print)
ISSN 2663-5097 (Online)
Индексі 74624
Индекс 74624

ҚАРАҒАНДЫ УНИВЕРСИТЕТІНІҢ ХАБАРШЫСЫ

ВЕСТНИК КАРАГАНДИНСКОГО УНИВЕРСИТЕТА

BULLETIN OF THE KARAGANDA UNIVERSITY

ЭКОНОМИКА сериясы

Серия ЭКОНОМИКА

ECONOMY Series

№ 1(101)/2021

Қаңтар–ақпан–наурыз
30 наурыз 2021 ж.

Январь–февраль–март
30 марта 2021 г.

January–February–March
March 30th, 2021

1996 жылдан бастап шығады
Издается с 1996 года
Founded in 1996

Жылына 4 рет шығады
Выходит 4 раза в год
Published 4 times a year

Қарағанды, 2021
Караганда, 2021
Karaganda, 2021

Postal address: 28, University Str., 100024, Karaganda, Kazakhstan.
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Bulletin of the Karaganda University. «Economy» series.
ISSN 2518-1998 (Print). ISSN 2663-5097 (Online).

Proprietary: NLC «Karagandy University of the name of acad. E.A. Buketov»

Registered by the Ministry of Information and Social Development of the Republic of Kazakhstan. Rediscount certificate No. KZ86VPY00027387 dated 30.09.2020.

Signed in print 29.03.2021. Format 60×84 1/8. Offset paper. Volume 20,12 p.sh. Circulation 200 copies. Price upon request. Order № 18.

Printed in the Publishing house of NLC «Karagandy University of the name of acad. E.A. Buketov».

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JEL: M53, O15, P46, P47
UDC 33.005.9

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Analysis of human resources management practices: the impact of training on performance efficiency of employees of Akhmet Yassawi University

Abstract

Object: Human resources management (HRM) provides the necessary guidance in order to reach the most efficient result through the most effective way. This paper aims to determine the relation between the descriptive characteristics and HRM practices, and the impact of training practices on the performance of employees.

Methods: The authors used the questionnaire method in collecting data and the 5-point Likert system to assess them. Then, the obtained data were analyzed by using SPSS Statistics program. The authors applied the factor analysis, T-test, ANOVA test, regression analysis methods.

Findings: This paper determines the impact of training practices, namely, the satisfaction factor and motivation factor, to the performance efficiency of the employees. When the satisfaction factor increases by one unit, the performance level will decrease by 0.145 units. There is a positive correlation between the performance and the motivation factor. If the motivation factor increases by one unit, performance level will also increase by 0.413 units.

Conclusion: Training activities increase the professional and technical knowledge of the employees as well as improve their abilities and corporate culture. Thus, it is necessary to provide a working environment where employees can continuously learn and develop themselves through training.

Keywords: human resources management, HRM practices, training, performance efficiency, university, satisfaction factor, motivation factor, employee, lecturer.

Introduction

Organizations, which effectively manage and use human resources, are more successful than organizations that do not use human resources effectively. Effective use of human resources is realized by a strong HRM policy, high motivation and effective performance management (Leroy et al., 2018). The well-structured performance management application also enables HRM to fulfill its functions in the organization. Training influences employee performance by gaining special skills in order to create a product from their work (S. Sharma & Taneja, 2018). Although employees have the skills and knowledge to do their current jobs, they also need to be prepared for future jobs. For this reason, having the knowledge and skills to carry out the works in the next period is achieved through the implementation of development programs (Ibrahim et al., 2017). The newly recruited employee should be continuously trained in order to keep up with the changes and developments, which required by their jobs from the time they start working until they quit (McCrie, 2007).

Qualitative or quantitative analysis of all the efforts, which put forward in order to achieve the organization's goals, reveal the performance. Employees are required to be aware of the expectations and performance standards of the management. Objectively evaluating employee performance is possible through a comparative analysis of the organization's standards or forms in certain periods (Khan et al., 2011).

While constantly changing environmental conditions, new competition conditions and market structures are a necessity for organizations to survive through adaptation, organizations can demonstrate their existence in this way. Some of the goals of the universities are to ensure the satisfaction of individuals in the higher education sectors, to ensure work commitment, to provide faster, flexible and quality service (Shibayama, 2019). In the developing digital world with more automation and technological developments, the need for manpower is increasing, and new horizons can be opened in this sector.

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This paper aims to determine the relation between the descriptive characteristics and HRM practices, and the impact of training on the performance of employees. HRM provides the necessary guidance in order to reach the most efficient result through the most effective way. It includes all employees of the organization from the lowest unskilled worker to the top management. The organizations are unlikely to be successful if they don't have an effective HRM policy, even sufficient of the financial resources does not help.

The importance of this research is to reveal the impact of training on performance. The organizations have to keep qualified personnel at the highest level of satisfaction. The organizations, whose work environments are not structured satisfactorily and pleasantly, will meet the difficulties in retain qualified personnel (Afshari et al., 2010). It is very difficult for newly employed personnel, who are getting oriented to the workplace and working conditions. In order to reduce such problems encountered in the recruitment process and to make positive changes in the performance of the employees, organizations have to give importance to training programs. Training improves the performance of personnel by gaining special skills. In other words, training is considered as an investment in human resources. The main purpose of the training is to reduce the current low performance and increase the productivity rate (Barba Aragón et al., 2014). Rapidly changing environmental conditions, new competitive conditions and market structures are a requirement for companies to survive through adaptation. So, only organizations, which maintain their existence as an open system, can maintain their continuity (Mpofu & Hlatywayo, 2015). Ensuring satisfaction in the higher education sector, creating loyalty to work and providing better quality are the main goals of universities.

The significance of this research is to examine the training activities in Akhmet Yassawi University. This paper determines the opinions and expectations of the respondents, the problems, deficiencies and mistakes related to the training activities, and the recommendations for solving of these problems. In this respect, the results of this study provide an opportunity to create a different vision and idea in developing HRM practices in universities. The increase of employees' (lecturers and staff) performance helps to obtain good results in quality. This situation is an important phenomenon for lecturers and university management.

Training is important and directly affects the efficiency of the organizations. Hence, we have tried to prove the following hypotheses:

H1: The gender of the employees impacts on training and performance factors.

H2: The marital status of the employees impacts on training and performance factors.

H3: Academic rank impacts on training and performance factors.

H4: Work experience in Akhmet Yassawi University impacts on training and performance factors.

H5: Training factors impact on performance of the employees.

Literature Review

Education consists of a process to gain knowledge and experience. According to Chahar et al. (2019) training is to ensure that employees improve their current knowledge, skills, experience and competence. The need for training varies significantly according to the profession and field of activity. In practice, a lot of large organizations establish the training departments within their organization or employ external coaches for training. Training has great importance in contributing to the achievement of organizations' goals. This activity needs time and a certain expense. Adapting to changing environmental conditions is very important for an organization, and this is possible only through training. Vinesh (2014) stated that, firstly, it should be determined the necessity of training activities, and then these needs should be planned and put into practice.

Organizations can only survive if they achieve their existential purpose. The employee, as an important element, should be carefully examined. In order to ensure the efficiency and effectiveness of the organization, the qualifications of the employees must be appropriate and compatible with the organization. Training seems to be one of the most effective elements of achieving this (Galvão et al., 2020). Training should be at the top of the issues of importance for the organization in the changing competitive environment.

According to Singh (2018) it is possible to define performance appraisal as a systematic evaluation tool that enables employees to realize their potential, sets goals for organizations, teams and employees to achieve more effective results, and consists of evaluation, feedback and rewarding stages. Performance appraisal has significant contributions to employees to achieve their goals, to identify what is expected of them, to identify training needs, and to establish quality communication with their managers. From the point of view of Sharma et al. (2020) the manager should provide constructive and unbiased feedback to his employees, be more effective in guidance, plan their professional development rationally, and ensure the integration of the organization's goals with the goals of the employee. Performance appraisal system consists of studies that include the detection and correction of deviations, the evaluation results of the performance and the ways of its improvement (Daoanis, 2012). In order to increase the effectiveness of this system, it should be supported by training programs and other communication tools. Thanks to this system, it is aimed to identify the goals and to monitor and evaluate the employee development needs. Gruman & Saks (2011) stated that if the system is applied fairly and under correct conditions, it may be possible to use the results, which are obtained as inputs to other human resources management practices.

Methods

We used the questionnaire method in collecting data. There were questions to determine the descriptive characteristics of the respondents in the first part of the questionnaire form. In the second part of the questionnaire, two different variables were used to measure perceptions of training practices. These variables consist of satisfaction and motivation for training activities. The third part includes questions about the assessment of the performance of the employees. The questionnaire consists of 19 questions in total. We used the 5-point Likert system in the questionnaire with the five levels of answers: 1-strongly disagree, 2-disagree, 3-indecisive, 4-agree, 5-strongly agree. Then, the obtained data from the applied questionnaire were coded and analyzed by SPSS 20.0 Statistics program. With the help of this program, we applied the factor analysis, T-test, ANOVA test, regression analysis.

The research is limited to Akhmet Yassawi University lecturers and staff only. Therefore, the study findings are limited to the sample and the questionnaire answers. The sample was applied to all employees of Akhmet Yassawi University, but only 205 questionnaires were answered and accepted as valid.

Results and Discussion

In order to understand the general situation, we decided to make following frequency statistics analysis. Table 1 concerning the gender distribution shows that 107 (52.2 %) respondents were male, 98 (47.8 %) were female out of a total of 205 respondents. It means that male is little more than female.

Table 1. Frequency statistics of gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	107	52,2	52,2	52,2
	Female	98	47,8	47,8	100,0
	Total	205	100,0	100,0	
Note - Compiled by the author on the basis of questionnaire					

The marital status distribution stated that 145 (70.7 %) respondents were married, 56 (27.3 %) were single, and 4 (2%) were divorced. Table 2 shows that the number of married employees is higher.

Table 2. Frequency statistics of marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	145	70,7	70,7	70,7
	Single	56	27,3	27,3	98,0
	Divorced	4	2,0	2,0	100,0
	Total	205	100,0	100,0	
Note - Compiled by the author on the basis of questionnaire					

As it is seen in the Table 3, 25 (12.2%) respondents were professors, 52 (25.4%) were associate professors, 46 (22.4%) were senior lecturers, 47 (22.9%) were assistant professors, and 35 people (17.1%) had no ranks. It proves that most of the employees in this sector are associate professors.

Table 3. Frequency statistics of academic rank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professor	25	12,2	12,2	12,2
	Associate Professor	52	25,4	25,4	37,6
	Senior Lecturer	46	22,4	22,4	60,0
	Assistant Professor	47	22,9	22,9	82,9
	No rank	35	17,1	17,1	100,0
	Total	205	100,0	100,0	
Note - Compiled by the author on the basis of questionnaire					

The distribution of the work experience in this university shows that 35 (17.1%) respondents have been working for less than 1 year, 65 (31.7%) for 1-5 years, 47 (22.9%) for 6-10 years, and 58 (28.3%) for above 11 years. It means that most of the employees in this sector have been working in this university for 1-5 years.

Table 4. Frequency statistics of work experience in Akhmet Yassawi University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	35	17,1	17,1	17,1
	1-5 years	65	31,7	31,7	48,8
	6-10 years	47	22,9	22,9	71,7
	11 and above	58	28,3	28,3	100,0
	Total	205	100,0	100,0	
Note - Compiled by the author on the basis of questionnaire					

Reliability Analysis

Reliability analysis is used to measure the level of trust in the survey research questions. Determining the reliability level is made by looking at the reliability coefficient. The reliability coefficient takes values between 0 and 1 (Table 5)

Table 5. Reliability coefficient

Cronbach Alpha Value	**Reliability status**
0.00 < Cronbach Alpha coefficient < 0.40	Not Reliable
0.40 < Cronbach Alpha coefficient < 0.60	Low Reliability
0.60 < Cronbach Alpha coefficient < 0.80	Reliable
0.80 < Cronbach Alpha coefficient < 1.00	High Reliability
Note - Compiled by the author	

The reliability analysis shows the Cronbach's Alpha coefficient for the whole study as 0.820. It means that the reliability of the research is high. Besides the Cronbach's Alpha coefficient for the whole study, it is calculated the Cronbach's Alpha coefficients for each level individually. Cronbach's Alpha coefficient took its lowest value (0.691) at the Performance level.

Factor Analysis

Factor analysis aims to reduce the number of analyzes to be made in order to reach a simpler result that is easier to understand and analyzes to be made by collecting questions with similar purposes under a single heading. However, factor analysis cannot be applied to every data set. The KMO value of the analyzing data sets should be high, and the Bartlett test statistic result should be significant, that is, it must be less than alpha (0.05). KMO value is a coefficient value indicating the size of the relationship between variables. KMO value takes a value between 0 and 1. While the relationship between variables increases, the KMO value approaches 1, when it decreases, it approaches 0 (Harrington, 2009).

This paper suggests the factor analysis, which was applied for HRM practices such as personnel training and performance. This study's p-value was calculated as 0.000 by the result of Bartlett test statistics. While the p-value is smaller than the alpha value, the test statistic was significant ($p=0.00 < Alpha=0.05$). In other words, it has been determined that it is appropriate to apply factor analysis on training and performance practices.

As a result of the factor analysis on the training and the performance factors, it was determined that each variable had one component matrix. The reliability coefficient, the mean and standard deviation values of the variables were also calculated (Table 6).

Table 6. Factor analysis for personnel training and performance practices

№	**HRM practices**	**Factor**	**Bartlett Test statistic Sig. = 0,000**				**Component matrix**
			Questions	**Mean**	**Std. Deviation**	**Alpha**	
1	2	3	4	5	6	7	8
1	Training	Satisfaction factor	Q5	4,04	,845	,789	,741
			Q6	3,89	1,160		,802
			Q7	4,11	1,077		,824

1	2	3	4	5	6	7	8
			Q8	4,22	,932		,741
			Q9	4,26	,927		,563
		Motivation factor	Q10	4,42	,858	,811	,821
			Q11	4,34	,805		,754
			Q12	4,37	,850		,792
			Q13	4,46	,737		,641
			Q14	4,43	,748		,756
2	Performance	Performance factor	Q15	3,97	,723	,691	,421
			Q16	3,89	,749		,603
			Q17	4,01	,813		,751
			Q18	4,05	,781		,763
			Q19	4,14	,807		,765
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program							

According to Table 7, the reliability coefficient of the performance factor is the smallest coefficient, that is, 0.691. This means that the study is reliable even at the smallest value, which belongs to the performance factor.

Table 7. Factor analysis' results by factors

№	HRM practices	Factor	Range of questions	Number of questions	Cronbach's Alpha		
					by factors	by HRM practices	whole study
1	Training	Satisfaction factor	Q5-Q9	5	,789	,839	,820
		Motivation factor	Q10-Q14	5	,811		
2	Performance	Performance factor	Q15-Q19	5	,691	,691	
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program							

T-test and ANOVA test analysis

ANOVA test is the analysis, which examines the relationship between study subjects and categorical variables. If the categorical variable has two sub-categories (gender: male, female), the relationship between the categorical variable and the study subject is tested with the T-test. If the categorical variable has more than two sub-categories, the relationship between the study subject and the categorical variable is examined with the one-way ANOVA test (Holcomb et al., 2018). While T-test uses t value for detecting differences, one-way ANOVA test uses F value. However, in package programs such as SPSS, the p-value is calculated for both the t-test and the one-way ANOVA test to make it easy to detect the differences. If the p-value is smaller than the value alpha (0.05), the difference between the relevant variables is found as significant.

Table 8 shows the relationship between gender and HRM practices.

Table 8. T-test for gender and HRM practices

№	HRM practices	Factor	Gender	N	Mean	Std. Deviation	t	Sig.
1	Training	Satisfaction factor	Male	107	4,1869	,61875	1,714	,088
			Female	98	4,0122	,83274		
		Motivation factor	Male	107	4,4187	,41348	,365	,715
			Female	98	4,3878	,76242		
2	Performance	Performance factor	Male	107	4,0393	,43214	,766	,445
			Female	98	3,9837	,60012		
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program								

H1: The gender of the employees impacts on training and performance factors.

It was used T-test to examine the differences according to the gender variable. The p-values of training and performance factors are higher than 0.05. Hence, the H1 hypothesis is not proved. In other words, training and performance factors do not depend on gender.

The rapidly changing needs affect the expectations of family members and cause role changes within the family. Increasing and changing needs enable women to enter working life rapidly and to increase their number. Although men have taken a much more active role in social life, women have started to take place in different responsibilities and duties in time. Men and women have common values in society and social life. However, they undertake different roles as a requirement of the gender roles defined for them in cultural terms. While women take part in working life as free individuals, they also try to behave in accordance with gender roles in society. Therefore, according to the results of this study, there is not much responsibility given to male employees in terms of their satisfaction with their training level and social life in comparison with women, although they focus better on training activities.

Providing the training opportunities for male and female employees at the university, having goals of these employees, being supported by their colleagues and managers to achieve these goals affect their performance levels. The high quality of work affects productivity positively in terms of the performance and commitment of the employees to the university. The decrease in the work quality negatively affects the performance and can lead to the turnover of employees. This study determined that the performance has no significance according to gender (0.05 < 0.445).

Table 9 shows the relationship between marital status and HRM practices.

Table 9. ANOVA test analysis of marital status and HRM practices

№	HRM practices	Factor	Marital status	N	Mean	Std. Deviation	F	Sig.
1	Training	Satisfaction factor	Married	145	4,1407	,68764	1,927	,148
			Single	56	4,0536	,78670		
			Divorced	4	3,4500	1,32035		
		Motivation factor	Married	145	4,3710	,64420	,771	,464
			Single	56	4,4893	,42455		
			Divorced	4	4,4000	1,20000		
2	Performance	Performance factor	Married	145	3,9600	,55907	3,682	,027
			Single	56	4,1143	,35339		
			Divorced	4	4,5000	,60000		
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program								

H2: The marital status of the employees impacts on training and performance factors.

When analyzing the affect of marital status on the training, it appears the need for an employee profile that emphasizes on analysis of the work and development, on increasing the importance of quality, as well as on the development of relations between management and employees. In this case, training activities have great importance. Training increases the employee's self-confidence, job satisfaction and performance, and enables him to realize himself. Married employees believe that improving their education positively affects their work and family life, but single employees' expects that trainings help them to make a career. This study results show no significance according to marital status (0.05 < 0.148 and 0.464). Therefore, the H2 hypothesis is not accepted for training, but it is accepted for performance, because the p-value of the performance (p = 0.027) factor is less than 0.05. In analyzing the effect of marital status on the performance of university employees, results shows that university with qualified employees can achieve success. As well as recruiting qualified employees at the university, it is important that they meet their expectations in order to retain these employees in the university. With the effect of the high responsibilities brought by marriage, the commitment of the married people to the job is higher than the singles. These employees can show higher performance in order not to lose their jobs.

Table 10 shows the relationship between academic rank and HRM practices.

Table 10. ANOVA test analysis of academic rank and HRM practices

№	HRM practices	Factor	Academic rank	N	Mean	Std. Deviation	F	Sig.
1	Training	Satisfaction factor	Professor	25	4,3440	,32924	6,160	**,000**
			Associate Professor	52	4,2615	,53216		
			Senior Lecturer	46	3,8435	,96047		
			Assistant Professor	47	4,3106	,46026		
			No rank	35	3,7600	,92520		
		Motivation factor	Professor	25	4,5840	,42786	3,324	**,012**
			Associate Professor	52	4,4538	,46038		
			Senior Lecturer	46	4,3739	,64029		
			Assistant Professor	47	4,5064	,35103		
			No rank	35	4,1029	,94852		
2	Performance	Performance factor	Professor	25	3,9760	,52383	1,613	,173
			Associate Professor	52	3,9038	,47772		
			Senior Lecturer	46	4,0652	,45812		
			Assistant Professor	47	4,1447	,45051		
			No rank	35	3,9543	,68956		
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program								

H3: Academic rank impacts on training and performance factors.

Table 10 shows that the p-values of training factors are less than 0.05. Thus, the H3 hypothesis is accepted for training, but not for performance factors, because its p-value is higher than 0.05.

Table 11. ANOVA test analysis of work experience in Akhmet Yassawi University and HRM practices

№	HRM practices	Factor	Work experience in University	N	Mean	Std. Deviation	F	Sig.
1	Training	Satisfaction factor	Less than 1 year	35	4,1143	,69331	3,053	**,030**
			1-5 years	65	4,0892	,74165		
			6-10 years	47	3,8723	,83866		
			11 and above	58	4,3000	,60321		
		Motivation factor	Less than 1 year	35	4,2914	,52991	1,964	,121
			1-5 years	65	4,5138	,39995		
			6-10 years	47	4,2766	,87034		
			11 and above	58	4,4517	,55890		
2	Performance	Performance factor	Less than 1 year	35	4,0171	,39815	1,657	,177
			1-5 years	65	4,0862	,37411		
			6-10 years	47	3,8723	,70702		
			11 and above	58	4,0414	,53345		
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program								

H4: Work experience in Akhmet Yassawi University impacts on training and performance factors.

The extension of the employee's work experience in Akhmet Yassawi University, increases the investment of that employee in the university. This means that the employee gets more experience regarding the work he has done during the work period in the university. This affects to the individual gains of employee and positive contributions to the efficiency of the institution. The correct determination of the needs analysis for training activities changes the employee's perspective on training. When analyzing the training factors, it was found that employees with 11 years of work experience or more were higher in training activities than others. The study analysis shows that the satisfaction factor has a significance according to work experience in university (0.03 < 0.05), but the motivation factor did not have significance

(0.05 < 0.121). Therefore, the H4 hypothesis is accepted for training, but not for performance factors, because its p-value is higher than 0.05. Although employees' time can be bought for wages, it is not always possible to buy their loyalty and enthusiasm for the job. These can be achieved by the approach methods towards employees. In addition to the economic expectations of the employees, their expectations and attitudes towards the job affect their performance.

Regression Analysis

Regression analysis examines the existence of linear relationships between a dependent variable and one or more independent variables, their size and direction. In the regression analysis, beta coefficients are calculated for variables that are found to have a significant relationship between variables (King et al., 2017). Mathematical equations are established with the calculated coefficients. Equation established in terms of regression. It can be expressed as:

$$Y = \beta 0 + \beta i\, Xi + \mathcal{E}i \quad (1)$$

Here, X – independent variable of i;
Y – dependent variable;
β i – coefficient of the independent variable of i;
Ɛi – error terms of the dependent variable
β 0 – constant coefficient value

Table 12. The relationship between performance and training factors

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,683	,255		10,515	,000
	Satisfaction Factor	-,119	,052	-,168	-2,312	,022
	Motivation Factor	,413	,062	,481	6,619	,000
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program						

a. Dependent Variable: Performance

Regression analysis shows that the calculated p-value is 0,000 and explanation percentage (R2) of the model is 0,182 (Table 13).

Table 13. Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,426[a]	,182	,174	,47155	,182	22,422	2	202	,000
Note - Compiled by the author on the basis of questionnaire with the help of SPSS 20.0 Statistics program									

a. Predictors: (Constant), Motivation Factor, Satisfaction Factor

H5: Training factors impact on the performance of the employees.

As a result of the regression analysis between performance and training factors, performance and constant coefficient (p = 0.000), satisfaction factor (p = 0.022) and motivation factor (p = 0.000) were found to be correlated (p <0.05). The regression equation is as follows:

The number of factors, which was significant according to regression analysis, is two, so i is equal to 2 (i=2). Hence, the formula of the equation must be as:

$$Y = \beta\, 0 + \beta 1\, X1 + \beta 2 X2 \quad (2)$$

If the symbol equivalents and values in Table 9 are replaced in the equation, we get the equation as follows:

Performance = 2.683 – 0.119 Satisfaction factor + 0.413 Motivation factor

As a result of the regression equation, we see a negative relationship of 11.9% between the performance and the satisfaction factor. When the satisfaction factor increases by one unit, the performance level will decrease by 0.145 units. There is a positive correlation of 41.3% between the performance and the motivation factor. When the motivation factor increases by one unit, the performance level will also increase by 0.413 units.

When the examining the relationship between the performance level of the employees and the satisfaction factor and motivation factor, training and development practices are one of the important issues in terms of efficiency. The general purpose of education systems is to equip individuals with comprehensive knowledge and skills. The aim of formal education systems is to provide individuals with basic knowledge and skills to improve their attitudes and behaviors. Specific issues related to working life are not within the scope of formal training. Thousands of young people graduate from formal education universities that cover different education fields every year and start their work life. However, most of these employees are not prepare for the real work. Thus, their performance decreases and they need training to eliminate the deficiencies in their jobs. One of the goals of managers is to prepare learning environments to increase the performance of employees and to help them gain the habit of lifelong learning.

Conclusion and Recommendations

This study aimed to determine the affect of the training factors on the performance efficiency factors. With the help of applied questionnaire, we aimed to determine the training programs and which factors affect employees' performance. According to the results we have stated that university generally aims to develop their employees and provide job satisfaction, to increase their productivity, and prevent their alienation from work through orientation trainings. Thus, as a result of the performance evaluation, it was concluded that the employees' job satisfaction and their commitment to the university increased, and they easily adapted to developing technology. The importance of developing training activities is emphasized in order to ensure the continuity of organizations and to adapt to changing environmental conditions. It means that success can be achieved by determining these activities by the needs and organizing them continuously.

This paper determines the effect of training practices, namely, the satisfaction factor and motivation factor, to the performance level of the employees. It has been explained the possibility of increasing the performance of university employees through training and development activities. Academic and professional staff should be trained in order to eliminate the identified training gap and to increase efficiency. It is important to provide the necessary trainings to employees in order to achieve the goals of the university and develop the personnel. If the training needs of the employees are determined correctly, the training will contribute to both their job-oriented and personal development, and also meet their educational expectations.

The success of the managers has also been effective in increasing the performance efficiency of university employees. Thus, in order to increase the loyalty and performance of the employees of the university, managers should be more social. The importance of performance evaluation is increasingly gaining in value within HRM. The rapid change and development in the world have caused organizations to enter an intensely competitive environment. The only way to achieve real productivity is to make the most effective use of human resources by organizations. Universities should establish evaluation systems according to their strategic goals and structure by training both evaluated and evaluating personnel. Training and development activities increase the professional and technical knowledge of the employees as well as improve their physical abilities and general culture. Also, the employee can improve his/her knowledge and skills regarding the job and improve wage opportunities by advancing in the career steps through trainings. As a result of this research, we have developed reccomendations for each factor of this study:

R1: A work environment free from stress and conflicts must be created in university in order to productively work. The desire of female employees to participate in an active work-life, to respond to their career expectations, and to have a sense of high esteem at the university can enable them to be stronger and more productive in both worklife and social life.

R2: Employees should be selected regardless of gender. Employees' opinions should be taken into account. Considering these as an opportunity for university development and providing equal opportunities in training and development to every employee may be beneficial in terms of achieving more efficiency and standing in a competitive environment.

R3: Considering the tendency of married employees towards training activities, the continuity of these activities should be ensured as a constant source of motivation. Determining the training needs and career expectations of single employees, training activities may be beneficial in terms of increasing employee performance.

R4: Increasing the performance of university's employees depends on the success of the managers. It is important for managers to see their employees as a social asset, not a material element, in order to increase their loyalty to the university. Considering the different expectations of all employees and paying attention to the social expectations of single employees will be beneficial in increasing employee motivation and performance.

R5: There are many different employees at the university in terms of their fields of duty and academic rank. For this reason, developing methods that will strengthen communication among employees by the university management and referring to the knowledge, experience and ideas of employees of all ranks without discrimination can provide significant benefits to the realization of the goals of both the university and the employees.

R6: While training activities increase the professional and technical knowledge of the employees, they also increase their general culture and physical abilities. With the help of training, the employee can improve his knowledge and skills in his job and reach better wage opportunities by career promotion. Regardless of the work experience, training activities, which will contribute to the individual and corporative development of the employees, can increase the rate of their benefit from these activities.

R7: Payment is generally considered as a tool used by universities to increase performance and motivation in order to achieve their strategic goals. Employees' performance can be increased by applying the performance-based payment system fairly and increasing motivation.

R8: The purpose of the training activities, which are implemented in order to increase the performance of university employees, should be oriented in learning. Universities that adopt this goal can eliminate the information obsolescence that occurs in individuals with the new knowledge and skills they acquire. High technology and knowledge, which is one of the most effective competitive elements in contemporary world, can only be achieved through well-programmed training activities. Correct determination of the subject and training programs can increase the training gains and performances of the employees.

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Б. Абдрасилов, Ж. Кудайбергенов, Д. Келесбаев, С. Баймаганбетов

Адам ресурстарын басқару тәжірибелерін талдау: тренингтің Ахмет Ясауи университеті қызметкерлерінің жұмыс өнімділігіне әсері

Аңдатпа

Мақсаты: Адам ресурстарын басқару жүйесі ұйымның барынша тиімді нәтижеге қол жеткізуі үшін маңызды рөл ойнайды. Мақаланың мақсаты – университет оқытушылары мен қызметкерлерінің жеке сипаттамалары мен адам ресурстарын басқару тәжірибелері арасындағы байланысты, сондай-ақ тренингтердің олардың өнімділік нәтижелеріне әсерін анықтау.

Әдістері: Авторлар деректерді жинау кезінде сауалнама әдісін және оларды бағалау үшін 5-балдық Ликерт жүйесін қолданды. Содан кейін алынған мәліметтер SPSS Statistics бағдарламасы арқылы талданды. Мақалада факторлық талдау, T-тест, Anova тесті, регрессиялық талдау әдістері қолданылды.

Қорытынды: Мақалада тренингтердің, атап айтқанда, қанағаттану факторы мен ынталандыру факторының оқытушылар мен қызметкерлердің өнімділігіне әсері анықталды. Яғни, қанағаттану коэффициенті бір бірлікке өскен кезде өнімділік деңгейі 0,145 бірлікке төмендейді. Ал, өнімділік пен ынталандыру факторының арасында оң байланыс бар. Егер ынталандыру коэффициенті бір бірлікке артса, онда өнімділік деңгейі де 0,413 бірлікке артады.

Тұжырымдама: Тренинг іс-шаралары оқытушылар мен қызметкерлердің кәсіби және техникалық білімін жетілдіреді. Сонымен қатар, олардың қабілеттері мен ұйымдық мәдениетін арттырады. Осылайша, оларды үнемі оқыту арқылы бәсекеге қабілетті жұмыс ортасын қамтамасыз ету қажет.

Кілт сөздер: адам ресурстарын басқару, адам ресурстарын басқару тәжірибелері, тренинг, өнімділік көрсеткіші, университет, қанағаттану факторы, ынталандыру факторы, қызметкер, оқытушы.

Б. Абдрасилов, Ж. Кудайбергенов, Д. Келесбаев, С. Баймаганбетов

Анализ практики управления человеческими ресурсами: влияние тренинга на эффективность работы сотрудников Университета Ахмета Ясави

Аннотация

Цель: Система управления человеческими ресурсами обеспечивает необходимое руководство для достижения эффективного результата наиболее действенным способом. Целью данной статьи является определение связи между описательными характеристиками преподавателей и сотрудников университета и практиками управления человеческими ресурсами, а также влияние тренинга на производительность сотрудников.

Методы: Авторы использовали метод анкетирования при сборе данных и 5-балльную систему Лейкерта для их оценки. Затем полученные данные были проанализированы с помощью программы SPSS Statistics. Кроме того, они применили факторный анализ, T-тест, ANOVA-тест, методы регрессионного анализа.

Результаты: В статье определяется влияние тренинга, а именно фактора удовлетворенности и фактора мотивации, на уровень производительности преподавателей и сотрудников. Когда коэффициент удовлетворенности увеличивается на одну единицу, уровень производительности снижается на 0,145 единицы. Между производительностью и фактором мотивации существует положительная корреляция. Если фактор мотивации увеличится на одну единицу, уровень производительности также возрастет на 0,413 единицы.

Выводы: Тренинги повышают профессиональные и технические знания преподавателей и сотрудников, а также улучшают их способности и корпоративную культуру. Таким образом, необходимо обеспечить рабочую среду, в которой они могут постоянно учиться и развиваться посредством тренингов.

Ключевые слова: управление человеческими ресурсами, практики УЧР, тренинг, показатель производительности, университет, фактор удовлетворенности, мотивационный фактор, сотрудник, преподаватель.

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DOI 10.31489/2021Ec1/16-25
JEL L51, L52
UDC 339.3

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Development of methodological foundations for the development and implementation of the state policy of reindustrialization of regional systems

Abstract

Object: The purpose of the study is to substantiate methodological issues of state policy and modeling of the dynamic development of regional systems as an inseparable triad "ecology-society-economy" in the conditions of various stages of reindustrialization.

Methods: methods of system analysis and economic synthesis of reindustrialization factors and assessment of their impact on the development of ecological and socio-economic systems are used, which will increase the effectiveness of state policy and management decisions in the field of scientific, technical, industrial and environmental policies.

Results: The developed methodology for assessing the state and dynamics of the development of ecological and socio-economic systems is a tool for further, more in-depth analysis of the development problems of the countries that are part of the EAEU zone, in solving which it is impossible to do without the use of methods of state regulation of the economy. It is established that socio-economic policy and the organizational, economic, and managerial mechanisms by which it is implemented have a significant impact on development. In this regard, it is important not only to determine the degree of efficiency of the use of available resources, but also to what extent and how to make up for their lack. The presence or absence of effective policies is reflected in the reduction or growth of barriers to development.

Conclusions: Recommendations on the choice of reindustrialization options are as follows:

– systematic consideration of three interrelated elements: realization of industrial potential, effective use of labor resources, ensuring normal working conditions and effective employment of the population; advanced development of infrastructure;

– consideration of environmental effects directly related to the process of re-industrialization;

– a retrospective study of the industrial development of the territory is the most important source of information for the development of directions for the allocation of productive forces;

– decision-making is based on taking into account social, economic, natural and technological criteria indicators, which provide for compliance with the principle of coordinating the interests of the subjects of reindustrialization, taking into account social priorities.

Keywords: state policy, reindustrialization, methodological approaches, regional systems, ecological-socio-economic systems.

Introduction

The current stage of socio-economic transformations in the countries of the Eurasian Economic Union (EAEU) zone is characterized by an active search for development prospects. The economic crisis has made significant adjustments both to the situation in the economies of different countries and to the state of world markets, requiring a reassessment of the parameters and forecasts of socio-economic development, changing approaches to the formation of development programs for various sectors of the national economy. But the most important conclusion, which follows from the analysis of the prerequisites and consequences of the crisis, is that the world is on the verge of large-scale technical, cultural and social changes that require the restructuring of the basic foundations of socio-economic systems. In this regard, the governments of the EAEU countries are forced not just to carry out reindustrialization, but practically to engage in the industrialization of the economy from scratch, since the industry, due to known political reasons, was completely destroyed or technologically obsolete (Shelomentsev, at al. 2017). In this regard, within the framework of this study, rein-

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dustrialization is understood as the design and deployment of internal industrial and technological chains that create use values for both industrial and consumer purposes.

The processes of state regulation of the socio-economic consequences of reindustrialization should be dynamic and flexible. In all countries with established market economies, the concepts, goals, objectives, priorities and mechanisms of industrial development have changed with economic development (Taubayev, Amirova, Borisova, 2019). Reindustrialization is impossible without strengthening the role of the state on the basis of a comprehensive socio-economic policy in relation to specific industrial complexes and industries.

Currently, research in this area is more focused on the general issues of reindustrialization, including imperatives, opportunities, challenges, and the impact of global factors and risks on these processes. The issues of public administration are practically not touched upon. The developed foreign concepts are poorly suited to the conditions in the EAEU countries, so they can only be considered as a basis for studying theoretical and practical experience that can be adapted for the countries within the EAEU. In addition, the issues of modeling the dynamic development of regional systems as an inseparable triad "ecology – society – economy" in the conditions of various stages of reindustrialization of the EAEU countries have not yet received proper theoretical and methodological study.

Literature Review

The founders of bringing to the fore the concept of reindustrialization as an innovative approach to the development of industrial systems can be noted (Stevenson, 1981) and (Roy Rothwell, 1985), who justified the conditions and prerequisites for this process in the world economy. Also, in this series, we can note the role of specialized studies of international scientific organizations (National Research Council, 1981), which have developed methodological recommendations for understanding terminology related to the development of reindustrialization processes. The study by (Roy Rothwell, 1985) examines the close relationship between reindustrialization and the development of science and technology, and determines the priority of industry development from the point of view of innovation and transition to new technological processes based on the developments of domestic science. In the future, the development of the theoretical aspects of the problem of reindustrialization became controversial within the framework of clarifying the terminology of the process and the various shades of the name of reindustrialization, which was reflected in the study of (Raggi, 2013).

At the present stage, instead of theoretical questions, research in the field of reindustrialization of national economies has come to the fore in the direction of determining readiness, priorities, resource provision and assessing the impact on national competitiveness. The readiness of post-socialist countries for reindustrialization in the context of increasing globalization is considered in the study by (Levin, 2010) which presents data not only on possible directions of reindustrialization, but also on the misconceptions inherent in stimulating this process in state policy. In addition, we can note the research of (Shih, 2013) and (Panza, 2014), which consider the key features of the reindustrialization of the United States and the Middle East, and in comparing the data, the study shows a clear dependence of the reindustrialization process on the level of development of countries. If for developed countries reindustrialization is an opportunity to move to a new technological level, then for developing countries an incorrectly developed and implemented state policy of reindustrialization can lead to deindustrialization, and to a decrease in the technological level.

It should be noted that now all the countries of the Eurasian Economic Union (EAEU), including Russia and Kazakhstan, have identified reindustrialization on a new technological basis as the main priority for the development of industry. Therefore, we study not only the features of the reindustrialization process, but also its impact on the main economic and social processes, so at this stage there are a lot of studies of this nature. Among them, we can note the study of (Shelomentsev, at al. 2017), which addresses the issues of the regional level of reindustrialization in the EAEU countries, from the perspective of a detailed study of the issues of modeling the dynamic development of regional systems as an inseparable triad "ecology-society-economy" in the conditions of various stages of reindustrialization of the EAEU countries. This study also raises questions about the further continuation of the study of reindustrialization processes in the EAEU countries, since the process is long-term and requires a well-developed state and supranational policy. In the study of (Nevskaya, et al. 2018) the transformation of the system of indicators of the state economic policy aimed at stimulating the development of economic potential in order to increase the competitiveness of the national economy with a priority on the reindustrialization of the Russian economy is considered. Among the Kazakh authors, I would like to mention the study by (Aimagambetov, et al. 2016), in which the authors consider the possibilities of reindustrialization of the national economy from the point of view of ensuring its competitiveness. Assessing the factors of ensuring competitiveness, the authors note the role of national industry and the business environment (Davletbayeva, Taubayev, Kuttybai, 2018) as the main actors in the processes of reindustrialization.

Method

A special feature of the proposed approach is the consideration of the national economies of the EAEU countries as regional ecological and socio-economic systems. Therefore, first of all, we will define the content of the concept of "ecological-socio-economic system" in relation to the national economies of the EAEU countries.

A systematic approach is now a common requirement when analyzing any problem that needs a scientific solution. At the same time, the general concept hides a diverse set of ideas about consistency. In our opinion, there are three main understandings of the term "system", which complement each other and are associated with successive stages of scientific research and construction in the economy.

The methodology for assessing the state and dynamics of the development of ecological and socio-economic systems is a tool for further, more in-depth analysis of the development problems of the countries that are part of the EAEU zone, in solving which it is impossible to do without the use of methods of state regulation of the economy (Taubayev, Kamenova, Borisova, Saifullina, 2019).

Methodological provisions for assessing the impact of reindustrialization processes on the socio-economic development of ecological and socio-economic systems take into account:

– transition of the economy to an innovative development path;

– linking the strategic goals and priorities of the national economies and the EAEU as a whole;

– efficient use of all types of resources.

The results of the assessment of the impact of reindustrialization processes and the development of ecological, socio-economic systems should be the basis for decisions taken by the authorities of the EAEU countries in the field of scientific, technical, industrial and environmental policies. Decisions should be aimed at ensuring the sustainable socio-economic development of countries based on the rational use of natural resources.

At the same time, a special role is played by factors related to nature management and environmental protection, which, through economic mechanisms, affect the socio-economic development of the EAEU member states as a whole. This is reflected in the main parameters of the vital activity of national economies: economic growth, income of the population, law and order and public safety, public health, education, culture, physical culture and sports, accessibility and quality of housing, state and municipal administration.

Results

The traditional view of the industrial system can be formulated in the following terms:

1. The system is closed and has a certain stability of goals and operating conditions.

2. Orientation of the system to mass production of goods and services.

3. The main factor of efficiency is the growth of profit generated in the conditions of rational use of all resources.

4. The organization and management system is based on the functional division of labor, norms and rules that ensure the effective use of resources.

The increasing complexity of global political and socio-economic processes is reflected in the active development of institutional theories in order to find solutions to systemic problems. According to the representatives of the socio-institutional direction, the new society is characterized by a significant increase in the role of man in the economy and the formation of a new type of production, economic and socio-cultural relations.

The content of modern views on the development of industrial systems can be briefly described as follows:

1. The system is considered in the unity of the influence of the internal and external environment.

2. Focus on product quality, on meeting the needs of individualized consumers.

3. The main source of profit is the staff with creative potential, as well as the conditions for its implementation.

4. The management system is focused on the growth of organizational, labor culture and innovations.

There are several approaches to building a system for measuring the socio-economic state, level and pace of development of the national economy:

– comparison by a single indicator selected as the main indicator;

– comparison of several indicators identified as priority for the socio-economic development of the region;

– building a system of consolidated socio-economic indicators;
– construction of rating points.

The first two approaches are used in mathematical modeling of both the regional socio-economic system as a whole and its structural elements. In the third approach, the principle of selecting and matching indicators is important. To achieve the optimality of the system, methods for constructing indicators are developed. For each indicator, each region gets its own rank (place) and score in points. Then the standard score for the indicator as a whole is calculated. You can evaluate a region by a coefficient that is equal to the ratio of the region's own score to the standard score for a specific indicator. All coefficients will be in the range from 0 to 1, the higher the value, the better the position of the region according to this criterion.

The territorial proportions of the development of productive forces reflect the participation of each region in the formation of the economic potential of the country at various stages of its development. This includes the production and non-production sectors of the economy, which are based on taking into account numerous, often multidirectional prerequisites and restrictions for the development of territories. The construction of typologies (or typological groupings) of regions is important both for the systematic description and diagnosis of the socio-economic situation of the regions, and for the implementation of the tasks of the state regional socio-economic policy. A prerequisite for the development of mechanisms and instruments of regional economic policy should be taking into account the economic, social, natural, geopolitical and other significant features of the regions.

In regional studies, methods of typological groupings of regions are widely used. At the same time, preference is given to the methods of complex groupings, when the division of a set of regions into groups (types) is carried out according to two or more characteristics taken in combination (combinations). A group of indicators with a certain thematic focus can be considered as a certain potential of the region in a particular area of economic development.

The economic advantages of individual countries include the availability of skilled labor, developed agriculture, the capacity and degree of diversification of industrial potential, the presence of a monopoly on scarce or export resources, the presence of unique industries and monopolistic enterprises, and a favorable economic and geographical location (border, coastal and transit regions) (Bliakhman, 2014).

With the transition to market - based principles of organizing social production, the competitive struggle of countries for resources to maintain and increase their socio-economic potential has become clear. In this competition, the comparative conditions of investment and functioning of capital and labor acquire a systematic character. The main goal and task of various countries is to assert themselves in the market space, to create an economic and managerial infrastructure that can ensure their success in the competition for investment, financial, and labor resources. From the point of view of the development of specific industries, the inflow of capital to a particular region is practically no longer dependent on centralized solutions, but is determined by the competitive capabilities of the region and the prospects for their expansion. Entrepreneurial capital flows to those countries and regions, as well as areas of activity where it is possible to place competitive production and organize profitable business.

Stable development of ecological-socio-economic system, and, consequently, all of the structural elements of this system is in direct proportion to the degree of possession of the corresponding potential for development, which determines the attractiveness of the country for new and reconstruction of existing facilities.

Based on the above, the methodological basis for assessing the impact of regional factors on the state and development of national economies in this study is the principles of the allocation of productive forces:

1. Territorial division of labor: improving the competitiveness of the national economy as a result of using the absolute and relative advantages of the division of labor between countries within their territories, using the economic benefits of the interregional and international division of labor.

Expected result: formation of effective market specialization, optimal employment structure, economic relations with other EAEU countries, taking into account economic, natural-resource and historical conditions and features of development, restoration and development of integration ties, conclusion of intergovernmental agreements on mutual supply of products, agreements on joint work on commissioning of production facilities, carried out on a mutually beneficial basis.

Risks: the weakness of internal integration, the lack of a common economic space, territorial isolation.

2. Rational and efficient placement of production: bringing production closer to the sources of raw materials, fuel, energy and consumption areas in order to reduce production costs; improving the environmental situation

Expected result: reduction of transport, energy, material and labor costs, increase of economic efficiency of production;

Risks: unfavorable natural and climatic conditions; high cost of living of the population and, as a result, high cost of labor, or low standard of living; high production costs.

3. Integrated socio-economic development of national economies: development of sectoral and intersectoral clusters.

Expected result: reduced environmental and production costs, increased employment efficiency as a result of the agglomeration effect.

Risks: territorial isolation, non-integrated nature of the economy, excessive orientation to the external market, the desire of foreign partners to direct the development of economic relations along the way of exporting raw materials and products of initial processing from the country.

4. Smoothing the asymmetry of the economic and social development of the EAEU countries: accelerating the pace of development of not only prosperous, but also backward territories.

Expected result: increased competitiveness and investment attractiveness on the basis of a well-thought-out development policy, reduction of hotbeds of social tension in the most backward economies that can destabilize the situation as a whole.

Risks: a significant gap between countries in terms of socio-economic development, the inability to overcome country differentiation over a long period of time, and the lack of financial resources.

Depending on the scope and nature of the manifestation of these factors in a particular socio-economic environment, the degree of their influence can be quite significant and manifest itself in both positive and negative aspects, becoming in the latter case barriers to development. Table 1 highlights the most important ones, which primarily determine the effectiveness of the socio-economic policy implemented in a particular country.

Table 1. Types of barriers to regional development and areas of their manifestation

Types of barriers	**The focus of barriers**
Economic	The ability of the regional economy to effectively use available resources to produce goods and services in accordance with the requirements of the domestic and foreign markets.
Investment projects	Objective resource opportunities for the implementation of investment development goals
Economic and geographical features	The state of economic development, indicating the degree of economic development of the territory, determined by the influence of natural and geographical features of the development of the national economy
Financial services	The financial capacity of the national economy to meet the expenditure obligations and powers assigned to it by the legislation to ensure comprehensive socio-economic development, without resorting to external financial assistance.
Infrastructure projects	The level of infrastructure development of the territory, as the most important condition for attracting and concentrating production and population on the territory of the country, the development of trade, financial and information services, and innovation.
Social networks	The state and conditions of social development of the territory that determine the standard of living of the population of the country, resulting from the consumption of economic and social benefits created by the market and public sectors of the national economy
Demographics	The population, its reproductive capacity, as a result of prolonged exposure on the dynamics and age structure of the population of the mode of generation, due to demographic and migratory behaviour of the population.
Labor relations	The state of employment, which characterizes its quality level that meets the standards of the International Labour Organization (ILO).
Institutional	The qualitative level of the management functions performed by the national authorities to create conditions for the growth of the country's competitiveness, determined by the effectiveness of the state socio-economic policy implemented in the territory.
Ecological	The level of anthropogenic load on the environment, which determines the degree of its suitability for the life support of the population and the conduct of economic activity.
Production and technological	The level of capacity of the real sector to use available resources to solve socio-economic problems of the development of the national economy.
Note - Compiled by the author	

Based on the above basic principles of the development and distribution of productive forces, the main factors of influence on the development of ecological, socio-economic systems are identified and grouped into 11 blocks (dominants):

The first block (economic) factors describes the conditions that define the place and role of the country in the international division of labor, the degree of export-oriented economic complex of the territory, giving an idea about the type, level of development and the structure of the production complex.

The second block (investment) forms the investment potential and activity of the country and its regions, attracting investment in the development of the national economy.

The third set of factors characterizes the level of economic development of the territory and indicates the degree of its economic and infrastructural development associated with the natural and geographical conditions of development.

The fourth set of factors characterizes the financial condition of the territory, due to the budget's fullness and the ability of the government to fulfill its obligations to society.

The fifth (infrastructure) block makes it possible to determine the level of development of industrial, transport, and social infrastructure, which forms the basis for the prospects for the development of the national economy and its investment attractiveness for both domestic and foreign investors.

The sixth (social) block characterizes the level of social development of the territory and is associated with the formation of the level and quality of life of the population of a given country, its social well-being, which determines the potential of migration outflow from the territory of the country or, conversely, its inflow.

The seventh (demographic) block of factors determines the presence and level of development of the demographic potential of the country, the conditions of reproduction of the population, its gender and age composition, migration activity, which ultimately forms the country's labor resources.

The eighth (labor) block of factors is closely related to the previous two, which form the basis for the formation and development of the country's labor potential.

The institutional block characterizes the share of the state's presence in the formation of economic activity in the country and its regions and takes into account the impact of the socio-economic development strategy implemented in the country, including state programs at the federal and regional levels. This set of factors takes into account the role of the state in creating an environment for improving the country's competitiveness and ensuring its economic and national security.

Tenth unit factors determines the level of ecological well-being of the country, the state of the environment, which, due to natural and climatic characteristics of the territory or as a result of high environmental load of sectors on the environment determine the restrictions to further increase production capacity at the same technological basis.

The last block (production and technological) factors characterizes the level of technological development of the national economy and is directly related to the previous one.

When all groups of factors interact, an ecological and socio-economic environment is formed that promotes or, conversely, hinders the development of the territory. Each of the circles of the diagram shown in Figure 1, and the whole of it, illustrates the essential components of the influence on the nature and level of development of the system. At the same time, each of the components determines the corresponding group of factors in the system of barrier influence. The effect of one of the components can largely be determined by the state of the others.

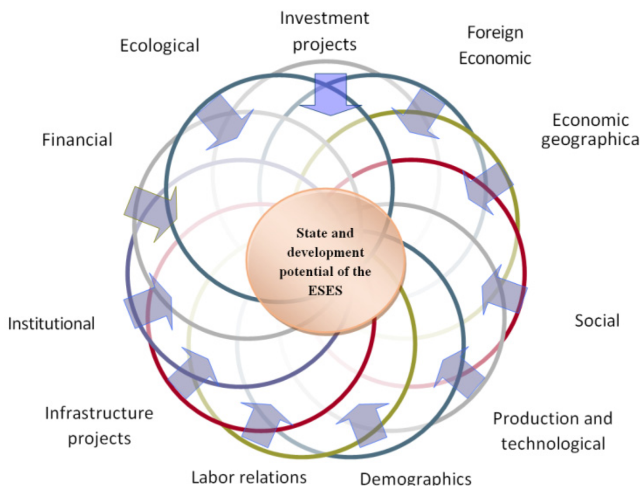

Figure 1. Factors determining the state and development potential of ecological and socio-economic systems (ESES)

Note - Compiled by the author

For example, the presence of production factors will not automatically lead to the development of industrial enterprises, if the level of infrastructure or socio-economic development of the territory does not contribute to the formation of a favorable investment climate.

Significant differentiation in the socio-economic state and dynamics of the development of ecological and socio-economic systems is largely due to resource availability, geographical location, climatic conditions and a number of other objective factors. At the same time, along with this, socio-economic policy and the organizational, economic, and managerial mechanisms by which it is implemented have a significant impact on development. In this regard, it is important not only to determine the degree of efficiency of the use of available resources, but also to what extent and how their lack is compensated. The presence or absence of effective policies is reflected in the reduction or growth of barriers to development.

Based on the above methodological approach, the ESES are divided according to their belonging to a particular group:

1) with a low level of barrier risks in development;
2) the average level of barrier risks;
3) with high barrier risks.

If the gap between the minimum and maximum values of the indicator is too large, and the step interval increases significantly, the search for the minimum and maximum values is reduced to finding the most common minimum or maximum values of this indicator in the selected range, and then determining the weighted average value.

Conducting both a general analysis and an analysis of individual blocks of indicators will help identify weak links in socio-economic development and develop more effective measures to eliminate or reduce the impact of development barriers that have a negative impact on the ESEC, as well as strengthen the effect of positive factors.

Discussion

When assessing the impact of reindustrialization processes on the development of ecological and socio-economic systems, we proceed from the fact that in the modern economic theory and practice of regional research, there is a variety of methodological materials, but there are no specific methods of diagnosis and forecasting. This should be solved the issue of obtaining reliable information about the features of the socio-economic situation in a particular region, comprehensive assessment and integrated analysis of statistical, sociological and other information about the socio-economic situation in the territory, the development of socio-economic development of the territory and preparation of recommendations aimed at overcoming the negative and support the positive trends of socio-economic development, bring these recommendations to the relevant authorities and management.

Conclusion

Thus, the features of the author's approach to the choice of reindustrialization options are as follows:

– systematic consideration of three interrelated elements: realization of industrial potential, effective use of labor resources, provision of normal working conditions and effective employment of the population; advanced development of infrastructure;

– consideration of environmental effects directly related to the process of re-industrialization;

– a retrospective study of the industrial development of the territory is the most important source of information for the development of directions for the allocation of productive forces;

– decision-making is based on taking into account social, economic, natural and technological criteria indicators, which provide for compliance with the principle of coordinating the interests of the subjects of reindustrialization, taking into account social priorities.

The development of effective economic tools for solving the strategic tasks of reindustrialization of the national economy is not limited to justifying the scale of state support for the industrial sector.

At the same time, the effect of improving economic instruments is to:

– ensuring the global competitiveness of a particular country and its regions;

– stimulating the process of consolidating the resources of the national economy for accelerated growth and changing its structure;

– development of human capital, improvement of spatial and qualification mobility of the population;

– improving the environmental situation to balance economic development;

– improving the quality of public goods management, including natural resources.

The degree of achievement of the set goals determines the sustainability and dynamism of the development of the national economy, as well as the formation of potential for its future development.

The development of public policy implementation tools means:

– justification of clear criteria for assessing the effectiveness of reindustrialization in the areas of nature management and environmental protection, as well as their correlation with strategic goals and tactical objectives of socio-economic development in general;

– socio-economic forecast of the consequences of the transformation of existing and the introduction of new economic mechanisms and tools;

– the sequence of decisions and actions to introduce innovations in the mechanisms and tools of public administration.

The recommendations, based on the relevant conclusions and conclusions, should be:

– focused on specific activities and addressed to specific public administration bodies;

– practical, that is, feasible in the medium term and taking into account legal and other restrictions;

– cost-effective, that is, the results, and the activities associated with them, should not exceed the costs;

– focused on specific socio-economic outcomes.

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Өңірлік жүйелерді қайта индустрияландырудың мемлекеттік саясатын әзірлеу мен іске асырудың әдістемелік негіздерін дамыту

Аңдатпа

Мақсаты: Зерттеудің мақсаты мемлекеттік саясаттың әдістемелік мәселелерін негіздеу және қайта индустрияландырудың әр түрлі кезеңдері жағдайында «экология – социум – экономика» ажырамас үштігі ретінде өңірлік жүйелердің серпінді дамуын модельдеу болып табылады.

Әдістері: Қайта индустрияландыру факторларын жүйелі талдау және экономикалық синтездеу және олардың экологиялық-әлеуметтік-экономикалық жүйелердің дамуына әсерін бағалау әдістері пайдаланылды, бұл ғылыми-техникалық, өнеркәсіптік және табиғатты қорғау саясаты саласындағы мемлекеттік саясат пен басқарушылық шешімдердің тиімділігін арттыруға мүмкіндік береді.

Нәтижесі: Экологиялық-әлеуметтік-экономикалық жүйелердің жай-күйі мен даму серпінін бағалаудың әзірленген әдістемесі ЕАЭО аймағына кіретін елдердің даму проблемаларын одан әрі, неғұрлым терең талдаудың құралы болып табылады, оларды шешуде экономиканы мемлекеттік реттеу әдістерін пайдаланбай істеу мүмкін емес. Дамуға әлеуметтік-экономикалық саясат және оны жүзеге асыратын ұйымдастырушылық, экономикалық, басқару тетіктері айтарлықтай әсер ететіні анықталды. Осыған байланысты қолда бар ресурстарды пайдалану тиімділігінің дәрежесін анықтау ғана емес, сонымен қатар олардың жетіспеушілігі қаншалықты және қалай толықтырылатыны да маңызды. Тиімді саясаттың болуы немесе керісінше болмауы даму кедергілерінің төмендеуінде немесе өсуінде көрініс табады.

Қорытынды: Қайта индустрияландыру нұсқаларын таңдау бойынша ұсыныстар:

– өзара байланысты үш элементті жүйелі қарау: өнеркәсіптік әлеуетті іске асыру, еңбек ресурстарын тиімді пайдалану, қалыпты еңбек жағдайларын және халықты тиімді жұмыспен қамтуды қамтамасыз ету; инфрақұрылымды озыңқы дамыту;

– қайта индустрияландыру үдерістерімен тікелей байланысты экологиялық зардаптарды есепке алу;

– аумақтың индустриялық дамуын ретроспективті зерделеу өндіргіш күштерді орналастыру бағыттарын әзірлеу үшін маңызды ақпарат көзі болып табылады;

– шешімдер қабылдау әлеуметтік басымдықтарды ескере отырып, қайта индустрияландыру субъектілерінің мүдделерін келісу қағидатын сақтауды көздейтін әлеуметтік, экономикалық, табиғи және технологиялық өлшем көрсеткіштерін есепке алуға негізделеді.

Кілт сөздер: мемлекеттік саясат, қайта индустрияландыру, әдістемелік тәсілдер, өңірлік жүйелер, экологиялық-әлеуметтік-экономикалық жүйелер.

Е.Б. Аймагамбетов, А.И. Игнатюк, Г.Н. Амирова, Е.И. Борисова

Развитие методических основ разработки и реализации государственной политики реиндустриализации региональных систем

Аннотация

Цель: Цель исследования заключается в обосновании методических вопросов государственной политики и моделирования динамичного развития региональных систем как неразрывной триады «экология – социум – экономика» в условиях различных этапов реиндустриализации.

Методы: Использованы методы системного анализа и экономического синтеза факторов реиндустриализации и оценки их влияния на развитие эколого-социо-экономических систем, что позволит повысить эффективность государственной политики и управленческих решений в сфере научно-технической, промышленной и природоохранной политики.

Результаты: Разработанная методика оценки состояния и динамики развития эколого-социо-экономических систем является инструментом для дальнейшего, более глубокого анализа проблем развития стран, входящих в зону ЕАЭС, в решении которых невозможно обойтись без использования методов государственного регулирования экономики. Установлено, что существенное влияние на развитие оказывают социально-экономическая политика и те организационные, экономические, управленческие механизмы, которыми она осуществляется. В связи с этим важное значение приобретает не только определение степени эффективности использования имеющихся ресурсов, но и то, насколько и каким образом восполняется их недостаток. Наличие или, наоборот, отсутствие эффективной политики отражается в снижении или росте барьеров развития.

Выводы: Рекомендации по выбору вариантов реиндустриализации заключаются в следующем:

– системное рассмотрение трех взаимосвязанных элементов: реализации промышленного потенциала, эффективного использования трудовых ресурсов, обеспечения нормальных условий труда и эффективной занятости населения; опережающее развитие инфраструктуры;

– учет экологических последствий, непосредственно связанных с процессами реиндустриализации;

– ретроспективное изучение индустриального развития территории является важнейшим источником информации для разработки направлений размещения производительных сил;

– принятие решений базируется на учете социальных, экономических, природных и технологических критериальных показателей, предусматривающих соблюдение принципа согласования интересов субъектов реиндустриализации с учетом социальных приоритетов.

Ключевые слова: государственная политика, реиндустриализация, методические подходы, региональные системы, эколого-социо-экономические системы.

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DOI 10.31489/2021Ec1/26-35
JEL C51, E24
UDC 331.5

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Assessment of non-standard employment as a factor of average per capita income

Abstract

Object: Purpose of this paper is to identify and assess the impact of non-standard employment on the income of the population in Kazakhstan.

Methods: For this study, we used methods of statistical multiple correlation and regression analysis based on the software package “Data Analysis” offered by MS Excel. We used data from the official website of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the RK at stat.gov.kz.

Findings: We have performed a preliminary selection of statistical indicators and determined a group of factors (and corresponding indicators) that hypothetically affect the population income for the period of 2004–2018. We have highlighted a total of twelve factors significantly affecting the income and grouped them into four groups: employment and income indicators, demographic and social indicators.

Based on the selection of the most significant factors, we have constructed a regression equation that demonstrates the degree of influence on the resulting income indicator. Subsequently, we have assessed the obtained regression model. The regression equation found is significant by the Fisher criterion; all its parameters, including the intercept term, are significant by the Student's criterion with a maximum error of 0.049. Autocorrelation of the residues is non-existent (according to the Durbin-Watson criterion). The multiple correlation coefficient is 0.99.

The results obtained can be useful for assessing the effectiveness of various social policy instruments, both at regional and national levels.

Conclusions: Indicators of employment, average wages, and social benefits occupy an important place in the system of indicators of average per capita income. The analysis shows a strong positive relationship between these indicators. At the same time, the overall relationship between changes in indicators of non-standard employment and population incomes in the Republic of Kazakhstan appears to be important for a more adequate analysis of the situation. A negative correlation between indicators of non-standard employment and per capita income confirms the vulnerability and instability of non-standard employee labor relations, and receiving a lower income compared to standard employment.

Keywords: Non-standard employment, income, factors, multiple regression, correlation.

Introduction

An individual's income is the main source of resources for meeting their most important needs, which ultimately has a decisive impact on the level of household well-being. In this regard, identification of factors affecting both increase or decrease in income is an important subject of research at all times.

In the past few decades, non-standard employment has become a stable feature of the worldwide labor market. Although entrepreneurs use non-standard employment as a tool to increase business competitiveness, on the part of the employee, non-standard employment is often associated with lower incomes and social security levels, unsatisfactory working conditions, especially when these employment forms are used by employers solely for the purpose of avoiding their duties. (Pritvorova, Simonov, Atabayeva, 2020).

People who find themselves in a situation of unstable employment lose the opportunity to plan their budget for a long time, which has negative consequences not only for the individual himself, but also for the development of society as a whole (Shelomentseva, Bespalyy, Beisembayeva, Soltangazinov, 2019).

In our study, we quantify the impact of non-standard forms of employment on average per capita income in households of Kazakhstan.

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Literature review

Identifying and assessing the impact of factors on household incomes is a classic area of economic research on living standards and well-being of the population (Sen, Sumner, Yusuf, 2020). The decline in the living standards causes a prolonged crisis, primarily in the social sphere: a decrease in the quality of education, an increase in unemployment and poverty. (Choi, Choe, Kang, 2020).

Considering income in the context of employment, the researcher Hong Zuo (2016) states that the main cause for rising income inequality is associated with the growth of non-standard employment and the increasing wage gap between its standard and non-standard forms.

With an increase in unemployment, the total income of the society decreases, wage growth stops resulting in a reduction in aggregate demand (Sovbetov, 2018, Hillman, 2020). Depressed demand undermines incentives for investment and employment leading to slower productivity growth and lower social welfare. These processes significantly exacerbate the issues of socio-economic inequality. In this regard, state policy requires constructive measures to improve the legal protection of employment, the labor market flexibility and the adoption of active employment programs (Vishnevskaya, Zudina, 2020).

Methods

The main research method is statistical multiple correlation and regression analysis.

Results

The study involved the following tasks:

– Determination of a group of indicators that have a hypothetically significant impact on the income of the population;

– Selection of statistical data for the period of 2004—2018;

– Identification of functional relationships between the considered dependent (y) and independent (x) variables included in the model; and

– Verification of the constructed model.

Since the macroeconomic indicator “income” is determined by a large number of factors simultaneously affecting it, we chose the method of multiple regression analysis. This implies constructing a model (Formula 1) and investigating the dependence of the variable y on several independent variables x_1, x_2, ..., x_n. The multiple regression equation has the following form:

$$y = a + b_1x_1 + \ldots + b_nx_n \tag{1}$$

where:

y is a dependent variable;

a is an intercept term;

$b_1...b_n$ are regression coefficients; and

$x_1...x_n$ are independent variables.

The intercept term a determines the value of y at zero values of all factor variables. Coefficients $b_1...b_n$ at independent variables are interpreted as the average change in the dependent variable y with a single change in the independent variable itself and unchanged values of all other explanatory variables.

The null hypothesis is put forward that the regression coefficients are zero, that is, H0: b1 = b2 = ... = 0. If the hypothesis is confirmed, then the coefficients are not statistically significant.

1. Selection of factors for building a model

For the first step, we have selected and analyzed macro indicators for the construction of a model under review for the period of 2004—2018.

Employment is a universal indicator associated with almost all types of macroeconomic indicators. In this regard, employment can serve as an explanatory indicator in relation to one of them, and as a result parameter in relation to others. In our study, all types of employment (standard and non-standard) are regression arguments. Since we are interested in how the model behaves in relation to non-standard employment, we assume an inverse relationship between income and all types of non-standard employment.

Evidently, to improve the dependence and obtain an adequate model, we need to include a sufficient number of variables in the regression equation. Since income is a complex indicator that considers the totality of socio-economic indicators, we shall add social indicators, unemployment and poverty indicators to the list of variables.

The first group consisted of indicators of non-standard employment, as they are the main object of the study. We have selected the following types of non-standard employment for their prevalence: temporary, part-time, self-employment, and informal employment.

The second group of factors under review included private income indicators: average wages and income from property.

The third group included a demographic indicator: the number of employed and unemployed people, which has a direct impact on the income level. As well as the level of youth unemployment and poverty (the share of people with incomes below the subsistence minimum).

The fourth group consisted of social payments: pensions, social transfers (benefits, targeted social assistance, housing assistance, and scholarships).

Thus, we have put forward a total of twelve indicators as independent variables (Table 1).

Table 1. Determination of model factors

Group	Factor	Name
	У	Income used for consumption, on average per capita
Group 1	X1	Fixed-term contracts, thousand people
	X2	Part-time employment, thousand people
	X3	Self-employment, thousand people
	X4	Informal employment, thousand people
Group 2	X5	Average salary, tenge
	X6	Property income, %
Group 3	X7	Employed population, thousand people
	X8	Unemployed population, thousand people
	X9	Youth unemployment rate, %
	X10	Poverty indicators, %
Group 4	X11	Average pension size, tenge
	X12	Social transfers, %
Note: Compiled by the authors		

2. Checking multicollinearity

A multicollinearity, that is, the relationship between independent variables is a frequent issue when constructing multiple linear regression models using the least squares method. Its consequences can be quite serious:

– High standard errors of estimates, which makes identification of true values of the determined quantities harder;

– The accuracy of the coefficient estimation worsens; and/or

– An incorrect sign for the regression coefficient and others may be obtained.

In this regard, a carefully check for multicollinearity factors and its elimination before building a model is required. For this purpose, a matrix of paired correlation coefficients is used (Table 2).

Table 2. Correlation matrix

	У	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
У	1												
X1	−0,22	1											
X2	−0,97	0,31	1										
X3	−0,73	−0,08	0,80	1									
X4	−0,96	0,05	0,64	0,88	1								
X5	0,99	−0,21	−0,67	−0,85	−0,66	1							
X6	−0,67	0,57	0,76	0,31	0,56	−0,65	1						
X7	0,95	−0,46	−0,64	−0,62	−0,65	0,63	−0,81	1					
X8	−0,92	0,51	0,82	0,62	0,80	−0,91	0,84	−0,98	1				
X9	−0,93	0,48	0,84	0,68	0,85	−0,94	0,80	−0,98	0,99	1			
X10	−0,69	0,76	0,74	0,39	0,58	−0,73	0,69	−0,87	0,87	0,86	1		
X11	0,98	−0,13	−0,66	−0,86	−0,67	0,69	−0,62	0,61	−0,89	−0,92	−0,67	1	
X12	0,94	−0,01	−0,91	−0,88	−0,96	0,97	−0,50	0,85	−0,82	−0,85	−0,60	0,98	1
Note: Compiled by the authors based on data obtained using MS Excel													

Tightness of the relationship between the effective feature and one of the factors when eliminating the influence of other factors included in the regression equation is characterized by the use of partial correlation coefficients. These indicators are used to determine whether a particular factor should be included in the model. A criterion for selecting factors is the value of a partial correlation coefficient which is 0.7 or greater. Factors that do not meet this condition are not included in the model.

So, to eliminate multicollinearity, we shall use the method of excluding variables, which consists in the fact that highly correlated independent variables ($|r_{xixj}| \geq 0{,}7$) are excluded from the model. In our study, such variables are X1, X3, X6, X8, X9, X10, and X12.

Also, using a partial correlation coefficient, we can rank indicators by the strength of their influence on the dependent variable (Table 3).

Table 3. Ranking factors

Factors	Correlation coefficient value
X5 Average salary	0,99
X11 Average pension size	0,98
X2 Part-time employment	−0,97
X4 Informal employment	−0,96
X7 Employed population	0,95
X6 Social transfers	0,94
X9 Youth unemployment rate	−0,93
X8 Unemployed population	−0,92
X3 Self-employment	−0,73
X12 Poverty indicators	−0,69
X11 Property income	−0,67
X1 Fixed-term contracts	−0,22
Note: Compiled by the authors	

Next, based on data obtained in Tables 2 and 3, we shall analyze an income's relationship with the above indicator groups:

1. To start with, we can confirm a noticeable inverse relationship between income and all types of non-standard employment. Therefore, all correlation coefficients for non-standard employment swing around. This means that with the increase in the number of non-standard employees, the income decreases. Under-employment (−0.97) and informal employment (−0.96) have shown a high correlation with income used for consumption. Among all factors, temporary employment has the weakest impact on income (−0.22). Self-employment has an average correlation (−0.73), but is not included in the model due to high multicollinearity with factors x2, X4, X5, X11, and X12. This suggests that it is self-employment that can often be characterized as incomplete and informal.

2. The highest level of correlation is observed between average salary and income (0.99). A positive direct relationship suggests that with the growth in salaries, the average per capita income increases as well, i.e., salaries are the main source of income. Property income has a negative correlation (−0.67) and shall be excluded due to multicollinearity with variables x2, X7, X8, and X9.

3. Employed population (0.95) has a positive correlation with income and is included in the model. Indicators of unemployment (−0.93, −0.92) and poverty (−0.69) correlate negatively with the income and are excluded from the model due to multicollinearity.

4. Indicators of the fourth group of factors (the average pension size (0.98) and social transfers (0.94)) show a strong relationship with the average per capita income. However, due to multicollinearity, social transfers are excluded from the model as well.

Thus, to find a multiple regression, we have excluded the variables more interrelated with each other than with the effective feature. After eliminating multicollinearity, the remaining variables show the greatest correlation with the productive trait (per capita income). These are variables X2 (part-time employment, thousand people), X4 (informal employment, thousand people), X5 (average salary, tenge), X7 (employed population, thousand people) and X10 (average pension size, tenge).

3. Construction of a model

Now we proceed to building a multiple regression (Table 4) using the "Data Analysis" tool included in MS Excel.

Table 4. Regression analysis log

Display of results				
Regression statistics				
Multiple R	0,999			
R Square	0,999			
Adjusted R Square	0,998			
Standard Error	690,811			
Observations	15			
	df	SS	MS	F
Regression	5,00	2911041200,07	582208240,01	1220,00
Residual	9,00	4294975,66	477219,52	
Total	14,00	2915336175,73		
	Coefficients	Standard error	t Statistics	P Value
Y-Interception	41631,29	11068,309	3,761	0,004
X2 (Part-time employment, thousand people)	-3,08	1,19	-2,587	0,044
X4 (Informal employment, thousand people)	-1,42	0,580	-2,448	0,049
X5 (Average salary, tenge)	0,19	0,050	3,812	0,003
X7 (Employed population, thousand people)	5,76	1,389	4,145	0,003
X11 (Average pension size, tenge)	0,23	0,09	2,545	0,045
Note: Compiled by the authors based on data obtained using MS Excel				

Based on the results of calculations in Table 3, let us create a multiple regression equation:

$$y = 41631.29 - 3.08 * X2 - 1.42 * X4 + 0.19 * X5 + 5.76 * X7 + 0.23 * X11$$

Interpretation of the resulting model:

1. With an increase in the number of part-time employees by 1 thousand people, the average per capita income used for consumption decreases by 3080 tenge;
2. An increase in the number of informally employed population by 1 thousand people leads to a decrease in the population income by 1420 tenge;
3. An increase in the average salary by 1 tenge increases the income by 0.19 tenge;
4. An increase in the number of employed people by 1 thousand people increases the income by 5760 tenge;
5. An increase in the average pension size by 1 tenge leads to an increase in income by 0.23 tenge.
6. In the case where all coefficients are zero, the average per capita income is equal to 41631.29.

4. Estimation of multivariate regression equation parameters

The most common indicator of the tightness of all regression equation factors' relationship with the resulting feature is R^2, the multiple determination coefficient. The regression statistics in Table 4 show a fairly high value of this coefficient of 0.99, which indicates a close relationship of the dependent variable y with five indicators simultaneously.

Evaluation of the reliability of the results of multiple regression and correlation has shown that the obtained regression equation is statistically significant and reliable, since $F_{obs} = 1220 > F_{crit}$ (0.05; 5; 9) = 3.48.

We estimated the significance of regression equation coefficients using the Student's t Statistics criterion. We compared the observed t Statistics values with the critical value: $T_{obs} > T_{crit} = 2.16$ for all coefficients. This means b1, b2, b3, b4, and b5 are statistically significant. Thus, the null hypothesis (But) is rejected.

Estimation of model residuals for autocorrelation.

The presence of autocorrelation violates the premises of the least squares method. If autocorrelation is detected, we need to improve the model, that is, exclude autocorrelation.

Let us check whether the model residuals correlate with each other. To do this, we shall calculate the Durbin-Watson statistics using Formula 2:

$$DW = \frac{\sum(e_i - e_{i-1})^2}{\sum(e_i)^2} \tag{2}$$

where:

$(e_i - e_{i-1})^2$ is the square of residual difference; and

e_i^2 is the square of residuals.

Using the Durbin-Watson critical points distribution table, we obtain the lower (d_L = 0.56) and upper (d_U = 2.21) values of the criterion for m = 5 (number of independent variables) and n = 15 (number of observations). We then compare the obtained values with those calculated by Formula 2: DW = 2.01 > d_L = 0.56, and so the Durbin-Watson statistic value close to two indicates the absence of autocorrelation.

Thus, the absence of autocorrelation confirms the effectiveness of the constructed model.

Calculation of the Approximation Error.

The permissible value of the approximation error should be within A ≤ 15%. If A > 15%, then the model is given a negative evaluation.

Let us calculate the approximation by Formula 3:

$$A = \frac{\sum \frac{|e_i|}{y_i}}{n} \tag{3}$$

where:

e_i are the residuals;

y_i is a dependent variable; and

n is the number of observations.

Within our study, we have obtained the value A = 2.179. This allows us to conclude that the quality of the fit is very good, since 2% of errors in the model is much less than 15%.

Calculation of the partial Elasticity.

The partial elasticity is calculated by Formula 4 and shows by how much percent y changes when x changes by 1%. All other factors remain unchanged.

$$Э_{xi} = \frac{b_i \times x_{iavg}}{y_{avg}} \tag{4}$$

where:

b_i is the regression coefficient;

x_{iavg} is the average value of the factor; and

u_{avg} is the average value of the dependent variable.

We have obtained the following partial elasticity coefficients are obtained:

Ex2 = −0.12: If the number of part-time employees increases by 1%, then average income decreases by 0.12%.

Ex4 = −0.10: If the number of informally employed people increases by 1%, then average income decreases by 0.10%.

Eh5 = 0.6: An increase in average salary by 1% leads to an increase in income by 0.6%.

Ex7 = 1.44: If average employment increases by 1%, then generally, this leads to an increase in income by 1.44%.

Ex11 = 0.21: If the average pension size increases by 1%, then generally, this leads to an increase in income by 0.21%.

Based on the results of a regression analysis, we can draw the following conclusions:

– The multiple regression model we have constructed meets all quality criteria. The significance level of regressors is less than 0.05 (P Value), which suggests significance and reliability of the regression coefficients included in the model. A multiple correlation coefficient of 0.99 indicates that 99% of the model is explained by the factors included in it;

– Employment indicators play a fundamental role in increasing the level of per capita income and, as a consequence, the life of the population, which is confirmed by the calculated coefficient of elasticity and a high regression coefficient (b_4 = 5.76);

– on-standard employment has an inverse relationship with the income. Declining trends in part-time and informal employment lead to higher incomes;

– The main source of improving the living standards is wages, the labor income, which simultaneously reflects the level of material needs of employees. Along with the growth in the rates of labor income in the Republic, there has been a steady growth in per capita aggregate income as one of the most important factors in raising the level and quality of life.

Discussion

One of the key indicators in a market economy is indicators reflecting the income level (Estrada, Xuehui Han, Park, Tian, 2018). The performance of the current income policy can be judged by macroeconomic indicators: employment, wages, and pensions. The income indicator's importance is explained by its relationship with various areas of state life (Chen, Xu, 2017).

Our data on the negative correlation between non-standard employment and income to some extent coincide with the results of a study by Swedish scientists Johansson Sevä and Larsson (2015). They argue that non-standard employment may not be equally beneficial for people in terms of their income compared to full-time employment. That is, non-standard employment workers may face a much higher risk of poverty than ordinary ones. That is correct; there is a negative impact, it is just the share in Kazakhstan is low, so the impact on elasticity is not that critical.

We endorse the statement of A.A. Taubayev, A.A. Legostayeva, G.S. Serikova, and Y.D. Orynbassarova (2019) that employment level is an important factor in increasing the living standards. To combat unemployment, the state creates new jobs in public areas or pays unemployment benefits, and creates various services for these purposes as well.

Our approach to the use of multiple regression to study the relationship of income with selected variables argues with the work by I.G. Yershova (2010) who suggests using pair regression for the analysis. In our opinion, multi-factor analysis produces a more effective and complex result.

We are impressed by the opinion of N.T. Vishnevskaya (2019) that non-standard employment needs to be regulated to provide those employed in this area with all the advantages of the formal economy employment. The state needs to develop legal support for all types of non-standard employment at the legislative level. Instability of non-standard employment is fraught with negative consequences for both the employee and the economy as it reduces the level and quality of life, leads to the expansion of shadow and informal sectors, and threatens the safety and health of the population.

Conclusion

The results of the analysis show that the use of non-standard types of employment in Kazakhstan at this stage leads to some negative consequences, mainly reduction in the population income. Among the ways to regulate these trends, the authors propose to focus the state policy on measures to adapt workers to the new economic order. Employment management policies should not only consider the development of this trend, but also reflect it in measures to regulate the situation on the labor market.

If today the main goal of state policy is to maintain the stability of employment and prevent the deterioration of a financial situation of employees, in the near future this shall not suffice. The changing conditions of economic development give priority to the task of ensuring the conditions of adaptation of workers to modern forms of employment in the labor market. This requires not only ensuring the qualitative characteristics of the labor force that meet the needs of the modern labor market, but also achieving a balance of interests between employees and employers for the optimal use of various forms of employment, where non-standard labor relations will be given a dominant position.

Social protection plays a particularly important role for workers in non-standard employment as it allows them to receive a higher level of guaranteed income during the transition between jobs, to compensate for low earnings and ensure effective access to healthcare and other social services. It is therefore important to consider policy options to reduce worker vulnerability and to see how social protection systems can better address the needs and specific circumstances of this group of people.

We call for an increase of unemployment insurance payments, i.e., fixing the lower limit of payments, especially for the pre-retirement age, two to three years before retirement. People of pre-retirement age often switch to part-time employment and temporary contracts, and are also candidates for redundancy.

We suggest an advance notice of the employment services of possible reductions of non-standard labor contract employees for an early start of preventive work with them by these services.

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А.К. Атабаева, Т.П. Притворова, С.Г. Симонов

Халықтың жан басына шаққандағы орташа табысының факторы ретіндегі стандартты емес жұмысбастылықты бағалау

Аңдатпа

Мақсаты: Мақаланың мақсаты — қауіпті жұмыспен қамтудың Қазақстандағы халықтың табысына әсерін анықтау және бағалау.

Әдісі: Зерттеу барысында статистикалық көп корреляциялық-регрессиялық талдау әдістері MS Excel бағдарламасының «Мәліметтерді талдау» қолданбалы пакеті негізінде қолданылды. Зерттеудің ақпараттық базасы Қазақстан Республикасы Стратегиялық жоспарлау және реформалар агенттігінің Ұлттық статистика бюросының statgov.kz ресми сайтының мәліметтері болды.

Қорытынды: Статистикалық көрсеткіштердің алғашқы іріктеуі жүргізіліп, 2004-2018 жылдар кезеңіндегі халықтың кірісіне гипотетикалық әсер еткен факторлар тобы (және тиісті көрсеткіштер) анықталды. Табысқа айтарлықтай әсер ететін 12 фактор белгіленді, олар төрт топқа топтастырылды: жұмыспен қамту және табыс көрсеткіштері, демографиялық және әлеуметтік көрсеткіштер.

Ең маңызды факторларды таңдау негізінде алынған кіріс көрсеткішіне әсер ету дәрежесін көрсететін регрессия теңдеуі құрылды. Алынған регрессия моделі бағаланды. Табылған регрессия теңдеуі Фишер критерийі бойынша маңызды, оның барлық параметрлері, оның ішінде еркін термин, максималды қателігі 0,049 болатын Стьюдент критерийі бойынша маңызды. Қалдықтардың автокорреляциясы жоқ (Дарбин-Уотсон критерийі бойынша). Көптік корреляция коэффициенті - 0,99.

Алынған нәтижелер аймақтық деңгейде де, ұлттық деңгейде де әр түрлі әлеуметтік саясат құралдарының тиімділігін бағалауда пайдалы болуы мүмкін.

Тұжырымдама: Халықтың жан басына шаққандағы орташа табысының көрсеткіштері жүйесінде жұмыспен қамту, орташа жалақы және әлеуметтік төлемдер көрсеткіштері маңызды орын алады. Талдау осы көрсеткіштер арасындағы берік оң байланысты көрсетеді. Сонымен қатар, жағдайды адекватты түрде талдау үшін жұмыссыздық деңгейінің өзгеруі мен Қазақстан Республикасындағы халықтың табысы арасындағы кері байланысты ескеру қажет. Қауіпсіз жұмыс ставкалары мен халықтың табысы арасындағы теріс корреляция қауіпті жұмысшылардың еңбек қатынастарының осалдығы мен өзгергіштігін, сондай-ақ стандартты жұмыспен қамтылғандармен салыстырғанда аз кірістердің алынуын растайды.

Кілт сөздер: қауіпті жұмыс, табыс, факторлар, бірнеше рет регрессия, корреляция.

А.К. Атабаева, Т.П. Притворова, С.Г. Симонов

Оценка нестандартной занятости как фактора среднедушевых доходов населения

Аннотация

Цель: Основная цель данной статьи состоит в выявлении и оценке влияния нестандартной занятости на доходы населения в Казахстане.

Методы: При проведении исследования были использованы методы статистического множественного корреляционно-регрессионного анализа на основе прикладного пакета «Анализ данных» программы MS Excel. Информационной базой исследования послужили данные официального сайта Бюро национальной статистики агентства по стратегическому планированию и реформам РК statgov.kz.

Результаты: Проведен первичный подбор статистических показателей и определена группа факторов (и соответствующих индикаторов), гипотетически влияющих на доходы населения за период 2004–2018 гг. Выделены 12 факторов, имеющих значимое влияние на доходы, которые сгруппированы в четыре группы: показатели занятости и доходов, демографические и социальные показатели. На основе отбора наиболее значимых факторов построено уравнение регрессии, демонстрирующее степень влияния на результирующий показатель доходов. Выполнена оценка полученной регрессионной модели. Найденное уравнение регрессии значимо по критерию Фишера, все его параметры, в том числе и свободный член, значимы по критерию Стьюдента с максимальной ошибкой 0,049. Автокорреляция остатков отсутствует (по критерию Дарбина-Уотсона). Множественный коэффициент корреляции равен 0,99. Полученные результаты могут быть полезными при оценке эффективности разных инструментов социальной политики как на региональном, так и национальном уровне.

Выводы: В системе индикаторов среднедушевых доходов населения важное место занимают показатели занятости населения, средней заработной платы, социальных выплат. Проведенный анализ демонстрирует сильную положительную взаимосвязь между этими показателями. В то же время для более адекватного анализа ситуации следует учитывать обратную взаимосвязь между изменением показателей нестандартной занятости и доходами населения в РК. Отрицательная корреляция между показателями нестандартной занятости и доходами населения подтверждает уязвимость и неустойчивость трудовых отношений работников нестандартной занятости, а также получение более низких доходов по сравнению с работниками стандартной занятости.

Ключевые слова: нестандартная занятость, доходы, факторы, множественная регрессия, корреляция.

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DOI 10.31489/2021Ec1/36-47
JEL: G17
UDC 675.631.6 (574)

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The profitability of second-tier banks: essence and main influencing factors

Abstract

Object. In this article, based on the aggregate indicators of second-tier banks of the Republic of Kazakhstan, what factors and how they affect the net income of the bank is determined.

Methods. During the analysis, a correlation-regression analysis of banking data was carried out using the Stata statistical package, and conclusions were drawn.

Findings. To identify the factors that affect the profitability of banks, the interdependencies between the selected indicators were identified. The correlation analysis revealed the relationship between the selected factors and the bank's net income. The density of bonds was determined by testing hypotheses calculated based on pair correlation coefficients.

Conclusions. The factor analysis carried out made it possible to identify the main factors affecting the bank's activities and assess the degree of their impact. As a result of the analysis of factors affecting the bank's income in the aggregate indicator of second-tier banks of the Republic of Kazakhstan, the compliance of the results obtained with the expected results was determined.

Keywords: bank efficiency, bank income, bank expenses, net profit, operational efficiency, correlation analysis, regression analysis.

Introduction

Banks are among the fastest and most effective emerging market structures in the economy. Of course, the condition for the bank's profitability is the preservation of liquidity and profit management. The amount of profit or loss received by the bank reflects the results of all its active and passive operations.

The main and most important indicator of the bank's performance is the bank's net profit, which is the final financial result for a certain reporting period. The amount of profit received affects the increase in the bank's fixed assets, the growth of equity, ensuring the stability of its financial condition and liquidity of the balance sheet, the level of dividends paid, and improving the development and quality of banking services provided.

In accordance with accounting requirements, the profit of commercial banks is determined by reducing the total amount of income by the number of expenses received as a result of the Bank's financial and economic activities (Novoselskaya et al., 2012).

When assessing the effectiveness of banks, a special role is given to the system of indicators that disclose the final financial results. Their analysis allows us to assess the effectiveness and financial condition of commercial banks. Successful financial stability management requires an effective choice of management methods and an assessment of financial performance (Zhakupova et al.,2020).

In the process of assessing the bank's profitability, it is necessary to conduct a factor analysis of the bank's profitability to identify the main sources of profit growth and sources of its decline. As a result, the composition of the yield is calculated in detail and the impact of changes in each of them on the change in the total yield is determined (Voloshina, 2014).

Therefore, the study of profit, its components, and factors affecting its dynamics is one of the most urgent problems in the financial analysis of the commercial bank's activities. The analysis of the main indicators of the bank's activity can be carried out using various methods, including economic and mathematical.

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The relevance of using mathematical` methods in banking activities makes it possible to find the best options for solving problems of commercial activity and is a promising direction of banking planning.

Without a deep and comprehensive study of factors, it is impossible to draw reasonable conclusions about the results of activities, justify plans and management decisions. Therefore, in our work, we conducted a study of the bank's profit using correlation-regression analysis using the Stata application package.

Literary Review

Each resulting performance indicator (profit) depends on many and different factors. The more detailed the influence factors on the value of the effective index, the more accurate and objective analysis and assessment of the quality of banking activities. Therefore, the study and measurement of the influence of factors is an important methodological approach in the analysis of banking activities. This can be seen in the works of foreign and domestic scientists who are working in this direction. In foreign literature, the determinants affecting the bank's profitability are considered in detail. It is proved that operational efficiency is a prerequisite for increasing the bank's profitability, and the low operational efficiency of high-yield banks (Martins et al., 2019).

It has been studied that when foreign banks provide more loans to the economy, cost efficiency increases, while the opposite happens in state-owned banks (Mamonov et al., 2017). Operational efficiency, which is defined as the ratio of expenses and income, is considered in the studies of Pasiouras and Kosmidou and is used to measure the impact of efficiency on the profitability of banks (Pasiouras & Kosmidou, 2007). Accordingly, we expect that operational performance indicators will be negatively correlated with the profitability of banks.

Factors affecting the bank's profitability are considering as the relationship between investment in innovations in banking activities and bank performance (Le&Ngo, 2020).

A group of authors, assessing the effectiveness of the banking sector of the countries of the eurozone, determined that the regulatory framework and macroeconomic environment are playing a crucial role (Apostolos et al., 2020). Similarly, a study conducted in central and Eastern European countries found that depending on the specifics of the local macroeconomic environment, the impact of bank indicators on liquidity is sometimes positive and sometimes negative (Romana & Sargub, 2015).

A study of European banks shows that special indicators of banks, studying the relationship between the bank's performance and its volume using capital risk and liquidity, prove that the improvement of the bank's capital in order to increase liquidity depends on the size of the bank (Terraza, 2015).

Income diversification, measured as the share of interest income, has a positive impact on bank profitability only in middle and high-income countries, while in developing countries, interest income is higher than non-interest income, which has no impact on bank profitability (Petria et al., 2015).

As an indicator of bank performance, many researchers have considered the return on capital (ROE), but Virginie Terraza believes it is not enough. In comparison with ROE, ROA considered as the main indicator of the bank's profitability, taking into account the risks associated with the loan. But the disadvantage of the ROA is that it does not take into account off-balance sheet assets (Lardic & Terraza, 2019).

As we can see from the results of the literary review, the factors affecting bank performance are divided into external (macroeconomic) and internal – specific only for banks. Although there are many works devoted to the study of factors affecting the effectiveness of the bank, research on the analysis of the banking sector of the Republic of Kazakhstan is limited.

Let's review the works of Kazakh and Russian authors on the effectiveness of banks ' activities and their influencing factors:

Management of the bank's assets and liabilities, i.e. reduction of banking losses, methods of effective risk management (Kazbekova & Dzhubalieva, 2020; Baibossynov et al., 2020), analysis of the financial stability of the Joint-Stock Company (Lambekova & Nurgalieva, 2017), activities of the banking sector and its impact on the financial market of the Republic of Kazakhstan (Baibulekova et al., 2019), analysis and forecasting of the main financial indicators of the bank's activities (Eveskina & Nurgalieva, 2019), methods of evaluating the effectiveness of banks (Krikalo, 2016) methods of evaluating the effectiveness of regional banks (Vyskachkina & Dubovaya, 2011), profitability of banks as the main indicator of its economic situation (Voloshina, 2014; Makin et al., 2019) are considered on the example of individual banks.

We believe that our article will contribute to the scientific literature on identifying factors that affect the bank's profitability.

Methods

As of September 1, 2020, 27 banks operate in the Republic of Kazakhstan, including 15 banks with foreign participation, 12 of which are subsidiaries, and 1 bank with 100% state participation.

In comparison with the beginning of 2020, the assets of second–tier banks of the Republic of Kazakhstan increased by 10.4%, liabilities – by 11.4%. Losses of the banking sector amounted to 5 512.1 billion tenge. The ratio of net income to total assets (ROA) is 3.42% compared to the previous year, an increase of 1.05%. The ratio of net income to equity on the balance sheet (ROE) is 25.94% compared to the previous year, an increase of 6.54%. Despite the current state of emergency in the country, we can note the success of the BAC sector.

The study of the structure of all income and expenses of second-tier banks of the Republic of Kazakhstan (image 1) shows the priority of the share of both non-interest income and expenses in the bank's activities.

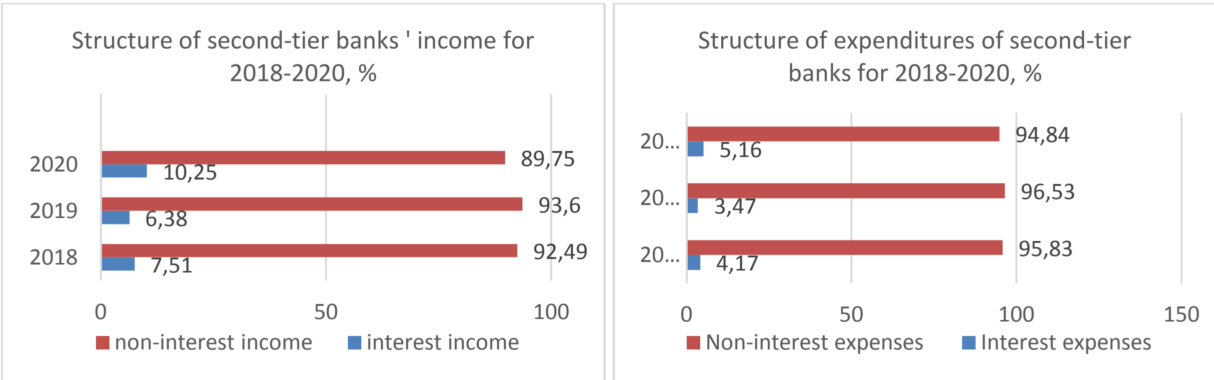

Figure 1. Structure of all revenues and expenditures of second-tier banks of the Republic of Kazakhstan

Note – Compiled by the author based on data from the National Bank of the Republic of Kazakhstan

Comparative indicators of income and expenses of second-tier banks of the Republic of Kazakhstan for the period 2018-2020 (10 months) are shown in Figure 2

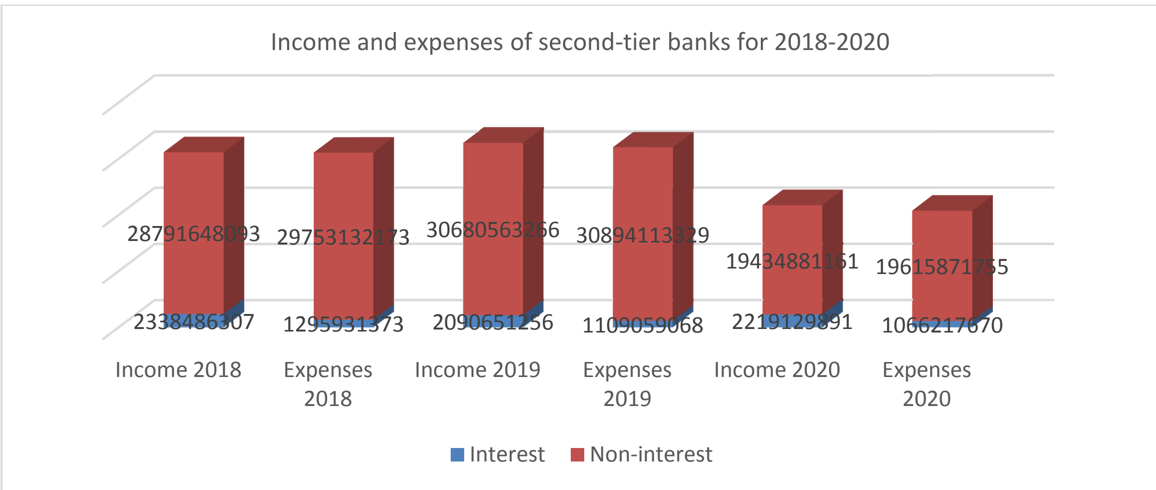

Figure 2. All income and expenses of second-tier banks of the Republic of Kazakhstan

Note – Compiled by the author based on data from the National Bank of the Republic of Kazakhstan

In order to identify factors affecting the effectiveness of the bank's activities for 2018-2020, a structural analysis of the composition of all income and expenses was carried out using the indicators published by the National Bank of the Republic of Kazakhstan. As a result, we see that more than 90 percent of the bank's income and expenses are not related to the payment of remuneration.

In this article, the object of the study is the consolidated indicators of second-tier banks of the Republic of Kazakhstan for each month from 2018 to 2020 (10 months of 2020). We analyze the net profit of banks, identify the factors that affect it, and determine the impact of the identified factors on net profit.

According to the methodology of analysis of bank performance prepared by Vyskachkina O.A. and Dubovaya S. E., we consider the coefficients that affect the performance of banks activities and the level of operational efficiency (Goddard & Molyneux,2004) as the main factor affecting net profit. Since our main goal is to determine the impact of bank expenses on profit, we will consider only those factors that are mainly related to expenses. According to the analysis of the composition of the bank's income and expenses, income from revaluation is on average 89% of all income, and expenses from revaluation are on average 81%. 2018-2020 we considered the effectiveness of key operations as an individual factor in the composition of income and expenses as a whole. Our goal is to determine the impact of factors on net profit by conducting regression analysis. In order to conduct a multi-factor correlation-regression analysis of the total net profit of STBs of the Republic of Kazakhstan, the following factors were selected (Table 1).

Table 1. Factors affecting the bank's profitability

№	Factors	Name of factors	Calculation methods
1	У	Net profit	Total income – Total expenses
2	X1	Level of interest expense coverage by interest income	Interest income / Interest expense
3	X2	Level of coverage of non-interest expenses by non-interest income	Non-interest income / Non-interest expenses
4	X3	Interest margin	Net commission income / Net interest income
5	X4	Return on assets	Interest income / Interest assets
6	X5	Liability Value Indicator	Interest expenses / Interest liabilities
7	X6	Operational efficiency level	Expenses / Income
8	X7	The efficiency of operations based on customer requirements	Expenses related to the payment of remuneration on customer claims / Income from remuneration accrued to customers on bank claims
9	X8	The efficiency of securities transactions	Expenses related to the payment of interest on securities / Income related to the receipt of interest on securities
10	X9	The efficiency of dealing operations	Expenses for dealing operations / Income from dealing operations
11	X10	The efficiency of commission operations	Expenses for commission operations / Income from commission operations
12	X11	The efficiency of revaluation operations	Revaluation expenses / Revaluation income
13	X12	The efficiency of derivative financial instruments	Expenses on derivative financial instruments / Income on derivative financial instruments
Note –The table was compiled by the author			

Using the consolidated indicators of the STB of the Republic of Kazakhstan for 2018-2020, we check the relationship between net income and independent variables through correlation analysis. First, we present the result of performing a general descriptive analysis using the Stata application program in Table 2.

Table 2. Descriptive statistics

№	Variables	2018 mean	2019 mean	2020 mean	Average for three years
1	У	373510,3	392758.8	445688.3	401532,7
2	X1	1,865	1.977	2,147	1,987
3	X2	0,991	0.984	0,991	0,988
4	X3	0,368	0,404	0,340	0,373
5	X4	0,067	0,063	0,055	0,620
6	X5	0,031	0,028	0,023	0,027
7	X6	0,978	0,983	0,977	0,979
8	X7	0,536	0,451	0,426	0,473
9	X8	0,396	0,581	0,462	0,480
10	X9	0,909	0,787	0,648	0,789
11	X10	0,167	0,199	0,252	0,203
12	X11	0,998	1,002	1,002	1,001
13	X12	1,079	1,016	0,928	1,012
Note – The table was compiled by the author as a result of analysis using the Stata application program					

Banks net income increases year-on-year the average net income for the ten months of 2020 increased by 19 percent compared to 2018 and 13 percent compared to 2019.

X1 shows the adequacy of interest income to interest expenses, the ratio of interest income to interest expenses is 1.86 times higher in 2018, 1.97 in 2019, and 2.14 times higher in 2020, that is, in recent years we have seen an increase in interest income rates compared to interest expenses.

We can see that the ratio of non-interest income to non-interest expenses X2 is less than that of non-interest income compared to non-interest expenses, but since the value of all three years is about 1, the situation is not so difficult. The non-interest income of STBs of the Republic of Kazakhstan is on average 91% of all income.

X3 net interest margin is determined by the ratio of net commission income and net interest income. The profit margin characterizes the effectiveness of cost management and pricing policy for the services provided by the bank (Lavrushin, 2016). In 2020, it decreased by 8% compared to 2018, and by 16% compared to 2019.

X4 The return on assets is determined by the ratio of interest income to the number of assets to which interest is calculated. As a rule, the profit in asset management in developed countries is higher than in interest-bearing operations. A high share of interest income in gross income leads to a low profit of banks. However, the net percentage margin in developing countries is much higher than in developed countries (Beck et al., 2009). This figure decreased by 18% in 2020 compared to 2018 and by 13% compared to 2019, the main reason for which is the corresponding decrease in interest income.

X5 The value of liabilities is determined by the ratio of interest expenses to interest liabilities. In 2020, it decreased by 26% compared to 2018, and by 18% compared to 2019. The changes are mainly due to an increase in interest liabilities.

X6 The level of operational efficiency is determined by the ratio of all expenses to all revenues (Athanasoglou et al., 2006), as this indicator decreases, the bank's performance improves, in our case 0.97, 0.98, 0.97, that is, we see that all income exceeds expenses. For banks to be able to operate, their expenses must be covered by income, and the fact that this indicator is below 1 indicates the stability of the bank's activities.

When analyzing the composition of income and expenses of banks based on factors from X7 to X12, income, and expenses with an equity weight of more than 1% were obtained. Our goal is to determine the impact of operational benefits derived from the main operations of banks on net profit. The fact that these indicators are below 1 means that the income from the corresponding operation exceeds the costs, and we know that as this indicator decreases, the efficiency of this operation increases.

X7 customer claims and the effectiveness of operations on customer claims to the bank is determined by the ratio of expenses related to the payment of remuneration on customer claims to income from remuneration accrued on customer claims to the bank. This figure decreased by 21% in 2020 compared to 2018, and by 6% compared to 2019. Income from remuneration accrued to customers under the bank's claims is more than twice as much as expenses for remuneration paid to customers by the bank.

X8 the effectiveness of securities transactions is determined by the ratio of expenses related to the payment of interest on securities to income related to the receipt of interest on securities. This figure increased by 17% in 2020 compared to 2018 and decreased by 20% compared to 2019. The downward trend indicates an increase in the efficiency of securities transactions. It refers to an operation with high operational efficiency.

X9 the effectiveness of dealing operations is determined by the ratio of expenses to income for dealing operations. Bank dealing operations arise based on the provision and implementation of transactions by bank dealers for the sale and purchase of foreign currency, the placement of deposits, securities, and gold (Varlamova & Vasilyeva, 2007). This figure decreased by 29% in 2020 compared to 2018, and by 18% compared to 2019. That is, we see an increase in the efficiency of dealing operations.

X10 efficiency of commission operations refers to the ratio of expenses for commission operations to income for commission operations. Commission income or expenses include income and expenses incurred in a certain amount for services rendered and works performed. In modern conditions, most banks aim to increase commission income, and many of them launch new commission products and services, as in modern conditions they have become an important source of additional profit. In Banking Practice, Commission operations include settlement and cash operations, bank card servicing, collection operations, bank guarantees, and guarantees, etc. (Maslyakova, 2017). Income from commission operations averaged 1.8% of all revenues, while commission expenses accounted for 0.36%. As you can see from Table 2, the income from commission operations is on average 5 times higher than the corresponding expenses and is the most profitable operations. This figure increased by 51% in 2020 compared to 2018 and by 27% compared to 2019, as a result of an increase in commission costs, but the efficiency of operations did not decrease.

X11 the effectiveness of revaluation operations is determined by the ratio of revaluation expenses to revaluation income. Both income and expenses from revaluation in STBs of the Republic of Kazakhstan, respectively, account for an average of 85% of all income and expenses. Both revaluation income and expenses in 2020 decreased by 38% compared to 2018 and by 43% compared to 2019. The effectiveness of revaluation operations is changing to a negative one. While in 2018 this figure was 0,998, in 2019 and 2020 we will see that this figure reaches 1,002 and a dangerous situation arises.

X12 the effectiveness of transactions with derivative financial instruments is determined by the ratio of expenses on derivative financial instruments to income on derivative financial instruments. Income from derivatives accounted for 1.4% of all income, while expenses from these operations accounted for 1.33% of all expenses. This figure decreased by 14% in 2020 compared to 2018, and by 9% compared to 2019. The effectiveness of derivative financial instruments began to stabilize by 2020 if in 2018-2019 they were in a dangerous zone.

Results

Correlation-regression analysis is a classic method of stochastic modeling economic activity. It studies the relationship between indicators of economic activity if the relationship between them is not strictly functional and is distorted under the influence of random factors. When conducting correlation-regression analysis, various correlation and regression models of economic activity are created (Baraz, 2005).

We used the method of correlation-regression analysis to determine the dependence of profits on second-tier banks in the Republic of Kazakhstan. To determine the factors of growth in the economic efficiency of banks, it is necessary to determine the interdependence between the selected indicators. We study the relationship between the selected factors and the bank's net income using correlation analysis (Figure 3)

	y	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
y	1.0000												
X1	0.1689	1.0000											
X2	0.3235	0.0952	1.0000										
X3	0.3131	-0.4131	-0.2503	1.0000									
X4	0.7643	-0.1190	-0.0777	0.2983	1.0000								
X5	0.7360	-0.1963	-0.0835	0.3333	0.9948	1.0000							
X6	-0.3955	-0.1942	-0.8010	0.0946	0.0004	0.0049	1.0000						
X7	-0.1240	-0.8352	0.1614	0.0664	0.0437	0.1017	-0.0122	1.0000					
X8	0.3198	0.2525	-0.2453	0.3869	0.2850	0.2625	-0.0366	-0.5268	1.0000				
X9	-0.6545	-0.5377	0.0229	-0.0171	-0.6268	-0.5745	0.0019	0.5073	-0.3189	1.0000			
X10	0.1204	0.9301	0.0538	-0.4331	-0.1574	-0.2310	-0.0877	-0.8619	0.2237	-0.5266	1.0000		
X11	0.3775	0.3252	-0.1786	0.1713	0.5230	0.5055	0.2631	-0.4375	0.2988	-0.7944	0.3004	1.0000	
X12	-0.2207	-0.6017	0.0390	0.1563	-0.2023	-0.1679	-0.1451	0.5708	-0.1207	0.6898	-0.6133	-0.7985	1.0000

Figure 3. Correlation analysis result

Note–The image was obtained as a result of analysis using the Stata application program

To quantify the existence of a relationship between the considered random sets, a special statistical indicator is used – the correlation coefficient (R). the value of the correlation coefficient takes values from 0 to +- 1.Since the value of the coefficient approaches 1, it is safe to say that there is a linear correlation between the considered sets of variables (Shanchenko, 2011). Special tables, such as the Chaddock scale, are used to assess the strength of the identified links.

In our study, the relationship between net profit and return on assets and the value of net profit and liabilities is considered strong, while the relationship between net profit and the efficiency of dealing operations is significant, and there is also a relationship between net profit and the level of operational efficiency and the level of efficiency of revaluation operations. And the relationship between other variables and net income is almost nonexistent. To make sure that the relationship is as close as possible, we test hypotheses that are calculated based on the pair correlation coefficients.

In order to check the adequacy of the identified links, we conduct a statistical assessment, for which we compare the calculated value R_{cal} and table values $R_{tab.}$ of the correlation coefficients.

We get the value $R_{tab.}$ from the table where the values of the Pearson correlation coefficient for different degrees and significance levels are given.

The significance level is 0.05 and the tab value is R tab. at the intersection of the number of specified dimensions (34-2) 0.3494. It is proved that there is a significant linear relationship between the considered numerical sets with the confidence of a given degree if the tabulation inequality $R_{cal} >= R_{tab.}$. executed. In other words, the hypothesis that the linear dependence is significant is accepted.

Comparing the calculated values of R_{cal} and the table values of R_{tab} variables shown in figure 3, we determine the independent variables that have a relationship with the dependent variable, the result is presented in table 3.

Table 3. The density of relationships between net profit and factors

№	Factors	Value	>=	r_{tab} value 0,3494	Proof of hypothesis
1	X4	0,7643	>	0,3494	Correlation is significant
2	X5	0,7360	>	0,3494	Correlation is significant
3	X6	-0,3955	>	0,3494	Correlation is significant
4	X9	-0,6545	>	0,3494	Correlation is significant
5	X11	-0,3775	>	0,3494	Correlation is significant
Note – Author's calculations					

Factors involved in multiple regression must meet the following requirements::

1. factors involved in multiple regression should have a significant impact on the dependent variable;
2. factors should not be closely related [29, P 55].

We have identified the factors that meet the first requirement, and in the next step, we check whether the factors are interrelated, i.e. collinear, using image 3.

Since the factors, X4 and X5 are closely related to each other 0.9948 and its value is higher than 0.8, it is impossible to calculate one of the two factors since it is impossible to determine the impact of each of them on the performance indicator.

In cases where the collinear bond of factors is strong, a factor whose pairwise bond density is less than the intermediate bond density is excluded from the study.

Regression analysis

In our example, the ratio of factors X4 and X5 to Y is less than 0.9948, so we do not take X5 into account. Let's show the result of the regression performed by the remaining factors in Figure 4.

```
. reg Y X4 X6 X9 X11

      Source |       SS           df       MS      Number of obs   =        34
-------------+----------------------------------   F(4, 29)        =     29.06
       Model |  1.7759e+12         4  4.4398e+11   Prob > F        =    0.0000
    Residual |  4.4313e+11        29  1.5280e+10   R-squared       =    0.8003
-------------+----------------------------------   Adj R-squared   =    0.7728
       Total |  2.2190e+12        33  6.7244e+10   Root MSE        =   1.2e+05

------------------------------------------------------------------------------
           Y |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          X4 |    4499334    811510.4     5.54   0.000      2839609     6159059
          X6 |   -7323965     1936992    -3.78   0.001    -1.13e+07    -3362371
          X9 |  -477467.7    178601.8    -2.67   0.012    -842749.4     -112186
         X11 |   -8392859     7247737    -1.16   0.256    -2.32e+07     6430427
       _cons |   1.61e+07     6750054     2.38   0.024      2268644    2.99e+07
------------------------------------------------------------------------------
```

Figure 4. Regression analysis result

Note –The image was obtained as a result of analysis using the Stata application program

Thus, while correlation analysis allows us to conclude the bond density between pairs Y and X, regression analysis allows us to predict the second variable (Y) based on one variable (X). The causal relationship between the analyzed sets is determined.

The model to be created based on the given data:

$$У = 1{,}6100000 + 4499334X_4 – 7323965X_6 – 477467{,}7X_9 – 8392859X_{11} + e$$

Evaluation of the importance of the regression equation

We evaluate the importance of the regression equation using the F-Fischer criterion. For this purpose:

– The hypothesis H0 is proposed that the regression equation has no significance;

– F-the tabular and calculated value of the criterion is determined. The tabular value of the criterion determined by the corresponding F table-2.70 and F calculated - 29.06;

– $F_{calc.} > F_{table}$ condition is checked.

The hypothesis H0 that the regression equation has no significance is rejected because the problem $F_{calc.}$ is 29.06 > F_{table} is 2.7, and the equation is considered statistically significant.

Checking the significance of coefficients in the regression equation

Based on Figure 4, we formalize the result of checking the level of significance of the coefficients of the regression equation in Table 4.

Table 4. A significance level of coefficients of the regression equation

Factors	P >I t I	significance of the coefficient at the value level α 0.05
X4	0,000	significant
X6	0,001	significant
X9	0,012	significant
X11	0,256	not significant
Constanta	0,024	significant
Note – The table was compiled by the author as a result of analysis using the Stata application program		

Taking into account only important factors (X4, X6, X9), we reconstruct the regression equation (fig.5).

```
. reg y X4 X6 X9

      Source |       SS           df       MS      Number of obs   =        34
-------------+----------------------------------   F(3, 30)        =     37.86
       Model |  1.7554e+12         3  5.8514e+11   Prob > F        =    0.0000
    Residual |  4.6362e+11        30  1.5454e+10   R-squared       =    0.7911
-------------+----------------------------------   Adj R-squared   =    0.7702
       Total |  2.2190e+12        33  6.7244e+10   Root MSE        =   1.2e+05

------------------------------------------------------------------------------
           y |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          X4 |    4444937    814740.4     5.46   0.000      2781015     6108859
          X6 |   -8302035     1753022    -4.74   0.000    -1.19e+07    -4721887
          X9 |  -324547.4    120930.6    -2.68   0.012    -571520.6   -77574.24
       _cons |    8513148     1721873     4.94   0.000      4996616    1.20e+07
------------------------------------------------------------------------------
```

Figure 5. Regression analysis result

Note –The image was obtained as a result of analysis using the Stata application program

Discussions

Thus, analyzing the results of the analysis, we found that the profitability of second-tier banks of the Republic of Kazakhstan is influenced by three main factors::

– return on assets X4;

– operational efficiency level X6;

– the efficiency of dealing operations X9.

$$У=8513148 + 4444937X_4 - 8302035X_6 - 324547{,}4X_9 + e$$

According to the model, an increase in the return on assets by one point increases net income by 4444937 tenge; an increase in the level of operational efficiency by one point reduces net income by 8302035 tenge; an increase in the efficiency of dealing operations by one point reduces net income by 324547.1 tenge. These effects are relevant only if the other factors involved in the model do not change. Among these factors, the level of operational efficiency that has the greatest impact on net income. That is, as costs decrease or revenues increase, there is a greater chance of increasing net income.

The coefficient of determination R^2 is used as a statistical indicator. The value of R^2 in our last regression equation is 0.7911 or 79%. All the influencing factors present in our model include 79% of the analyzed function X4, X6, X9, the remaining 21% require research since this is the influence of unaccounted factors. You can also use this metric to run a test and check the importance of the regression equation.

Since it is performed with the inequality R^2 calculated 0.7911 > R^2 table 0.297, it is possible to note with 95% confidence the importance of this regression equation.

Conclusions

Factor analysis allows us to identify the main factors affecting the bank's activities and assess the degree of their impact. As a result of the analysis of factors affecting the bank's profit in the aggregate indicator of second-tier banks of the Republic of Kazakhstan, the compliance of the results obtained with the expected results was determined.

As a result of the first correlation analysis, factors that have a significant relationship between the bank's profit and the selected factors were selected.

With 95% certainty, it was found that there is a significant linear correlation between the considered net profit sets and the X4, X5, X6, X9, X11 sets.

As a result of checking the absence of a mutual collinear relationship between the selected factors, factor X5 was excluded from the calculation.

As a result of regression analysis conducted using significant factors, a causal relationship between net profit and factors X4, X6, X9, X11 was revealed.

The result of evaluating the significance of the regression equation, which was carried out using the F-Fischer criterion, showed that the equation is considered statistically significant.

The significance of the coefficients of the regression equation is checked by the coefficients p and the most important factors are determined.

The equation as a result of regression formed using the identified significant factors is considered adequate.

As a result of the correlation-regression analysis, the negative impact of operational efficiency on the bank's net income was proved. The return on interest assets has a positive impact on the bank's profitability, and the effectiveness of dealing operations has a negative impact.

The results of the test with the determination coefficient R^2 also revealed the importance of the regression equation.

We intend to conduct this study in the future with an increase in the indicators of second-tier banks of the Republic of Kazakhstan individually and the number of stages.

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Ж.Т. Евескина, А.М. Нургалиева, Л.А. Чайковская

Екінші деңгейдегі банктердің табыстылығы: мәні және әсер етуші негізгі факторлар

Аңдатпа

Мақсаты: Мақалада ҚР екінші деңгейлі банктерінің жиынтық көрсеткіштерінің негізінде банктің таза табысына қандай факторлардың және қалай әсер ететіндігін айқындау.

Әдістері: Талдау барысында Stata статистикалық пакетінің көмегімен банк мәліметтеріне корреляциялық-регрессиялық талдау жасалып, қорытындылар жасалды.

Қорытынды: Банктердің табыстылығына әсер ететін факторларды анықтау үшін таңдалған көрсеткіштер арасындағы өзара тәуелділіктер анықталды. Корреляциялық талдау арқылы таңдап алынған факторлар мен банктің таза табысы арасындағы байланыстар айқындалды. Байланыстардың тығыздылығын жұптық корреляция коэффициенттеріне негізделіп есептелетін гипотезаларды тексере отырып анықталды.

Тұжырымдама: Жүргізілген факторлық талдау банк қызметіне әсер ететін негізгі факторларды анықтауға және олардың әсер ету дәрежесін бағалауға мүмкіндік берді. ҚР екінші деңгейлі банктерінің жиынтық көрсеткіші бойынша банк табысына әсер ететін факторларды талдау нәтижесінде алынған нәтижелердің күтілетін нәтижелерге сәйкестігі табылды.

Кілт сөздер: банк тиімділігі, банктік кірістер, банктік шығыстар, таза табыс, операциондық тиімділік, корреляциялық талдау, регрессиялық талдау.

Ж.Т. Евескина, А.М. Нургалиева, Л.А.Чайковская

Прибыльность банков второго уровня: сущность и основные влияющие факторы

Аннотация

Цель: В статье на основе сводных показателей банков второго уровня РК было определено влияние факторов на чистый доход банка.

Методы: В ходе анализа был проведен корреляционно-регрессионный анализ данных банка с помощью статистического пакета Stata и сделаны выводы.

Результаты: Выявлены взаимозависимости между выбранными показателями для определения факторов, влияющих на доходность банков. Корреляционным анализом определены связи между выбранными факторами и чистой прибылью банка. Взаимозависимость связей проверялась гипотезами, рассчитанными на основе коэффициентов парной корреляции.

Выводы: Проведенный факторный анализ позволил выявить основные факторы, влияющие на деятельность банка, и оценить степень их влияния. На основе анализа установлено соответствие полученных результатов ожидаемым прогнозам.

Ключевые слова: банковская эффективность, доходы банка, расходы банка, чистая прибыль, операционная эффективность, корреляционный анализ, регрессионный анализ.

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DOI 10.31489/2021Ec1/48-56
JEL: J21
UDC 331.522

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The impact of the working longevity of the “silver generation” on the Kazakhstani labor market

Abstract

Object: To study the impact of demographic trends on the labor market in the context of the labor activity of the older generation in Kazakhstan and to conduct a comparative analysis of the employment indicators of older people.

Methods: methods of system, dynamic and structural analysis, and correlation analysis.

Findings: The results of the analysis allow us to conclude that the aging process of the population actualizes the labor activity of the older population, and determines the formation of support for stimulating the employment of older people.

Conclusions: Thus, the role of the older generation in the labor market is being scaled, and therefore it is necessary to consider labor activity in retirement age as an element of the formation of the lifestyle of the older generation, where the role of labor as a factor of active longevity is given a special place. The creation of working conditions necessary for the use of working capacity is a long-term goal in ensuring active longevity and meeting the needs of older people in socially significant activities

Keywords: Demographic transformations, population aging, employment of older persons, labor market.

Introduction

The change in the age structure of society as the share of older people increases, its overall composition, is a trend that characterizes the demographic situation in many countries. Therefore, the main task of today is to find ways to take this trend into account in public practice when planning and predicting social development and social policy in the near and long term. Based on the general trend of aging, the need to actively involve people of the “silver generation” in work activities increases (Report UN, 2012).

By 2050, every sixth person in the world will be over the age of 65 (16%). According to forecasts, in the period from 2019 to 2050, the share of the population aged 65 and older will double, including North Africa and West Asia, Central and South Asia, East and Southeast Asia, as well as Latin America and the Caribbean.

By 2050, one in four people living in Europe and North America may be 65 years old or older. In 2018, for the first time in history, the number of people aged 65 and older exceeded the number of children under the age of five. The number of people aged 80 and older is projected to rise from 143 million in 2019 to 426 million in 2050.

Economists are very concerned about the problem of population aging. An increasing proportion of older people reduce labor productivity and total consumption, so many researchers point to changes in the age structure as one of the main reasons for the decline in economic growth in developed economies in the XXI century.

The increase in life expectancy should be aimed at increasing the long-term participation of the elderly in the field of socially useful work, which will change the current perception of older people as a burden on society. To do this, it is necessary to create and maintain such conditions that would allow them to remain useful to society for longer.

The economic side of the problems of population aging is becoming the most relevant and discussed topic. It should be noted that the coronavirus infection has made its own adjustments to the structure of the labor market in all countries, especially affecting changes in the employment of the “silver generation”, which are one of the main risk groups during the pandemic.

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Now the main question of our consideration arises, how will the labor activity of the population of retirement age affect the Kazakhstan labor market.

Literature Review

The declaration of the leaders of the "Group of Twenty" countries, adopted at the Osaka summit (Japan, 2019), noted that the aging of the population in the G20 member countries is taking place at different rates. Taking into account the common features and differences in the demographic structure of the "Group of Twenty" countries, it recognized the importance of promoting a healthy and active society of the elderly, allowing workers to participate in the elderly labor market, while continuing to expand the participation of young people, women and disabled people in economic activities. It will be encouraged to create jobs and flexible labor organization, improve the quality of employment through lifelong training and expand employment opportunities for employees, as working life will be longer and will strive to improve working conditions for all, including long-term care workers in accordance with national conditions (G20 Osaka Leaders' Declaration, 2019).

The UN edition of "World Population Prospects 2019: Highlights" highlighted one of the key findings that the world's population is high and that people over the age of 65 are the fastest growing age group.

In recent years, the aging trend has led to some global response measures. The political declaration Madrid International Plan of Action on Ageing, adopted by 160 UN member states in 2002, have become the new agenda on Aging in the XXI Century. The recommendations of these documents identify three priority areas of activity:

– participation in the development of older people;

– protecting the health and well-being of the elderly population;

– providing wide opportunities and favorable conditions for the elderly (Madrid International Plan of Action on Ageing, 2002).

As Kolosnitsyna M.G. and Gerasimenko M.A. note, the resource potential of the older generation is now more efficient than in previous years. Also, the active participation of older people in the labor force is a favorable factor for longevity and solving problems in the labor market (Kolosnicyna M.G., Gerasimenko M.A., 2014)

The conducted assessment of M.L. Agranovich, where the relative chances of employment of men and women of "silver age" by education levels and the interregional variation of this coefficient were studied, showed that the economic activity of the population of retirement age, especially men, is significantly lower than the average of this category (Agranovich N. V. et al., 2012).

I.M. Kozina and I.K. Zangieva define the existing mechanisms of labor activity regulation as neutral in relation to the age group. In addition, labor market agents form their own judgments about the appropriate age limit for employment, thereby expanding the spread of ageism. As a result, the labor market is characterized by age segmentation, which is accompanied by changes in the labor activity of pensioners (Kozina I.M., Zangieva I.K., 2018).

The works of scientists devoted to the analysis of labor behavior of persons of older age groups in the market cover a wide range of issues. The socio-economic situation of older persons and their role in the labor market are considered by R.I. Kapelyushnikov, V. Gimpelson, A.N. Chelombitko, O.V. Krasnova, V.Yu. Lyashok and others (Gimpelson V., 2017; Chelombitko A.N. 2018; Lyashok V.Yu., 2018).

As R.B. Sarsembayeva and Zh.D. Kusmangalieva note, the process of population aging is a relatively new phenomenon for Kazakhstan. Therefore, this problem is a little-studied area in the country (Sarsembayeva R.B., Kusmangalieva Zh.D. 2010).

Methods

The official datas of the Bureau of National statistics of Agency for Strategic planning and reforms of the Republic of Kazakhstan and the UN Department of Economic and Social Affairs of the Population were used for the analysis.

The methods of dynamic and structural analysis were used in the processing of statistical and departmental data describing the quantitative parameters of the participation of the older generation in the labor market in Kazakhstan. The factors influencing the aging of the population in Kazakhstan were identified on the basis of a correlation analysis.

Results

According to the above, various aspects of the problem of aging are of great interest to Kazakhstan. In our country, significant changes in the age structure of the labor force are also taking place in the future. Such changes have a number of significant economic and social consequences, which require significant adjustments to the state budget and Financial Policy, and adequate measures to be taken in the labor market (Figure 1).

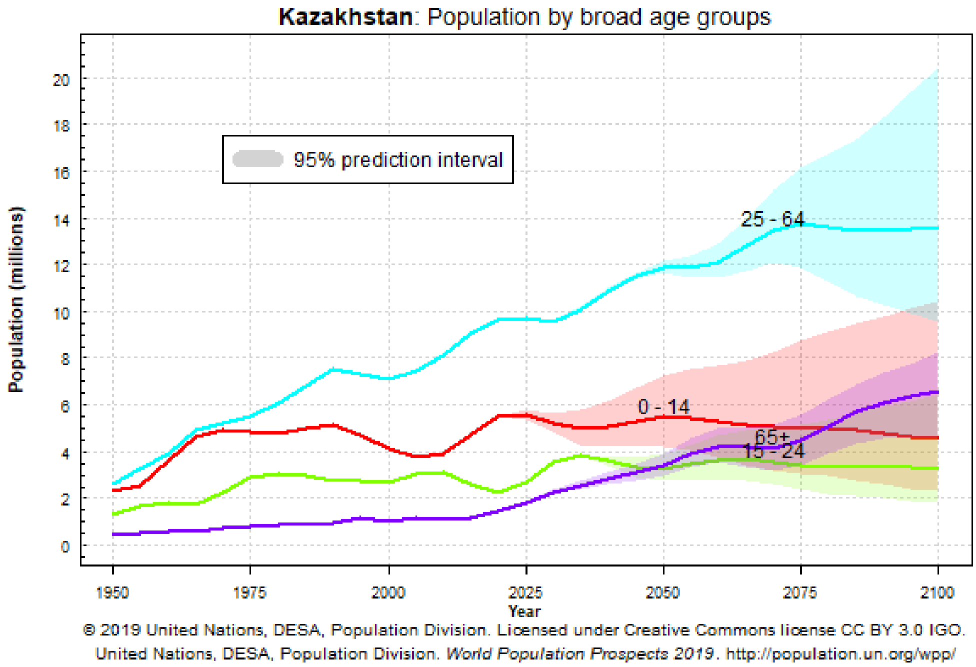

Figure 1. Population indicators by age group in the Republic of Kazakhstan and UN forecasts up to 2100

Note - United Nations. Department of Economic and Social AffairsPopulation Dynamics. World Population Prospects 2019// https://population.un.org/Wpp/Maps/

2011-2019 in the Republic of Kazakhstan the share of elderly people in the total number increased from 6.5% to 7.5%. According to the demographic scale developed by UN experts, this indicator shows that the population is on the verge of old age.

Based on the conducted correlation analysis, we can say that the main factors of aging of the population in Kazakhstan are such factors as the number of people leaving the country aged 15-45 years and an increase in life expectancy.

Thus, the importance and role of the older generation in social development and participation in the labor force increases, which justifies the need to create favorable conditions for the realization of its resource potential.

In the course of such demographic changes, a huge financial burden falls on young groups. This is reflected, in particular, in the dynamics of the dependence indicator (the ratio of the number of people over the age of 65 to the population aged 20-64) (Figure 2).

This age shift is based on demographic reasons, such as the transition of "baby boomers" to older age, a decrease in the birth rate typical of many countries, and an increase in life expectancy at older age. That is, the descendants of baby boomers are people born from 1946 to 1964. This age group got its name due to the increase in the birth rate, which occurred immediately after the Second World War.

Compared to previous years, the resource potential of the older generation is now more effective. Also, the active participation of older people in labor activities is a favorable factor for longevity and solving problems in the labor market.

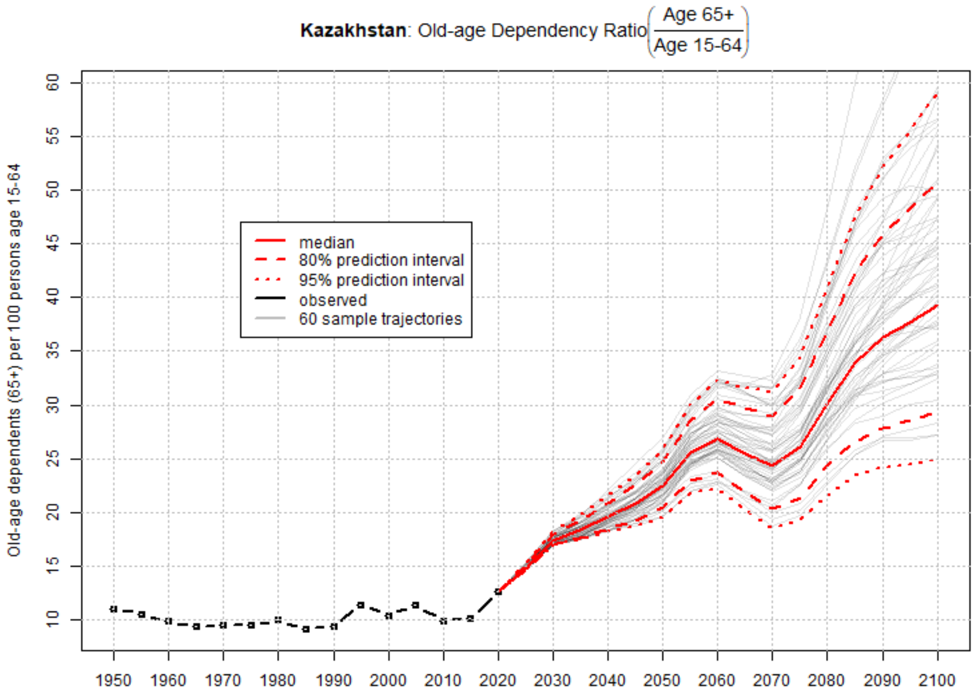

Figure 2. Demographic load factor by age according to UN data

Note - United Nations. Department of Economic and Social AffairsPopulation Dynamics. World Population Prospects 2019// https://population.un.org/Wpp/Maps/

However, in recent years, the level of employment of employees of retirement age in Kazakhstan has been declining (Figure 3).

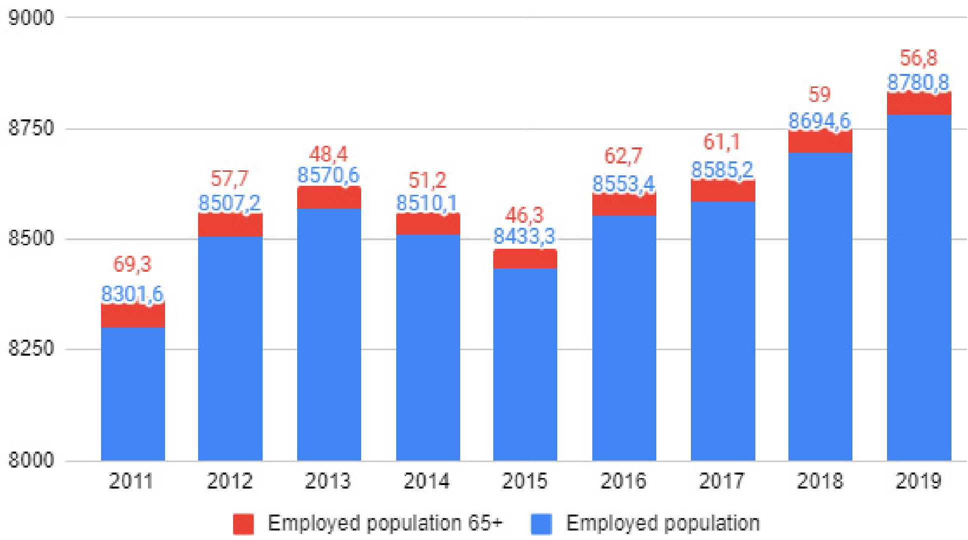

Figure 3. Employed population in the Republic of Kazakhstan by age group 65+, thousand people

Note - Bureau of National statistics

In the structure of the employed population, the main share is 78.2% of people aged 25-54 years, 11.5% - young people aged 15-24 years, 9.6% - 55-64 years and 0.6% – young people aged 65 and older.

The highest indicator of employment of pensioners for the period under review was observed in 2016, which amounted to 62.7 thousand people. However, in recent years, the number of employed elderly people has decreased, one of the reasons is a gradual increase in the retirement age of women (in accordance with the Law "On pension provision in the Republic of Kazakhstan" from January 1, 2018 to 2027, for 10 years, the pension age for women will increase by 6 months).

In the structure of the employed population, the age group of 65 years and older has a large share of self-employment (Table 1).

Table 1. Age indicators of the self-employed population, number of people

	Total	including age				
		15	16-24	25-54	55-64	65+
2011	2720223	9247	506384	1 875 286	276 787	52 519
2012	2693469	7643	496681	1 878 934	270 635	39 576
2013	2620965	1455	407 098	1 890 593	288 010	33 809
2014	2400 370	3433	398 235	1 708 225	249 333	41 144
2015	2138425	1071	305 187	1 567 605	233 760	30 802
2016	2210541	466	275 919	1 620 467	272 654	41 035
2017	2099222	520	263 380	1 528 689	266 525	40 108
2018	2082522	275	254 949	1 494 633	290 575	42 090
2019	2099249	333	264 859	1 491 586	299 918	42 553
Note - Compiled by the authors						

For example, if we compare the age indicators of the self-employed population in 2011 and 2019, the number of citizens aged 65+ decreased by about 10 thousand people compared to other age groups.

A significant proportion of the population aged 65 + is employed in agriculture, forestry and Fisheries. At the same time, during the period under review, this type of economic activity took a leading position in this age group, but in recent years there has been a decrease in the number of employed citizens of the "silver generation" (Figure 4).

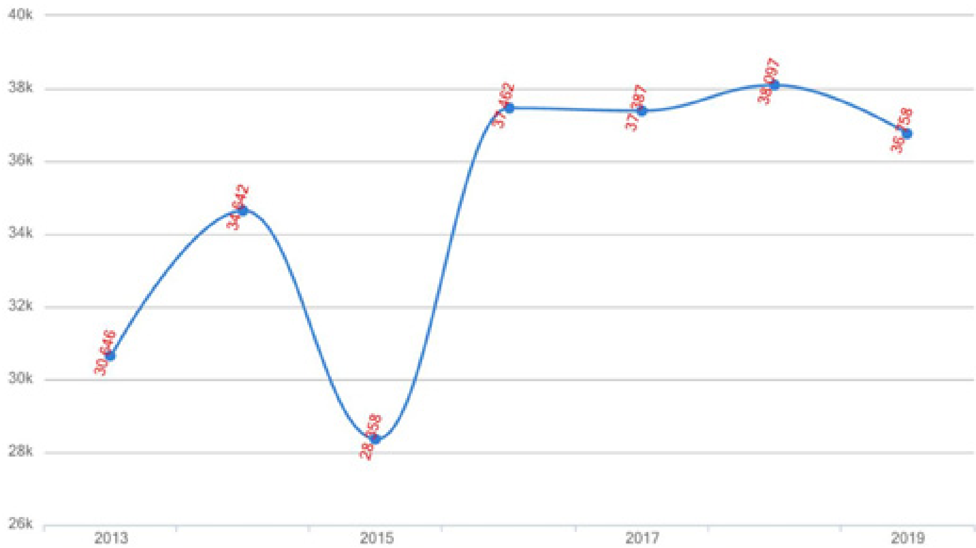

Figure 4. Number of employed people aged 65+ in Agriculture, Forestry and Fisheries, thousand people

Note - Information-analytical system of the Bureau of National statistics Of the Agency for strategic planning and reforms of the Republic of Kazakhstan

2011-2019 the number of employed people aged 65+ has decreased in many economic activities. For example, in industry, art, entertainment and recreation, it decreased by 2 times. On the contrary, the number of people employed in the wholesale and retail trade; repair of cars and motorcycles, transport and warehousing, accommodation and catering services has increased (Figure 5).

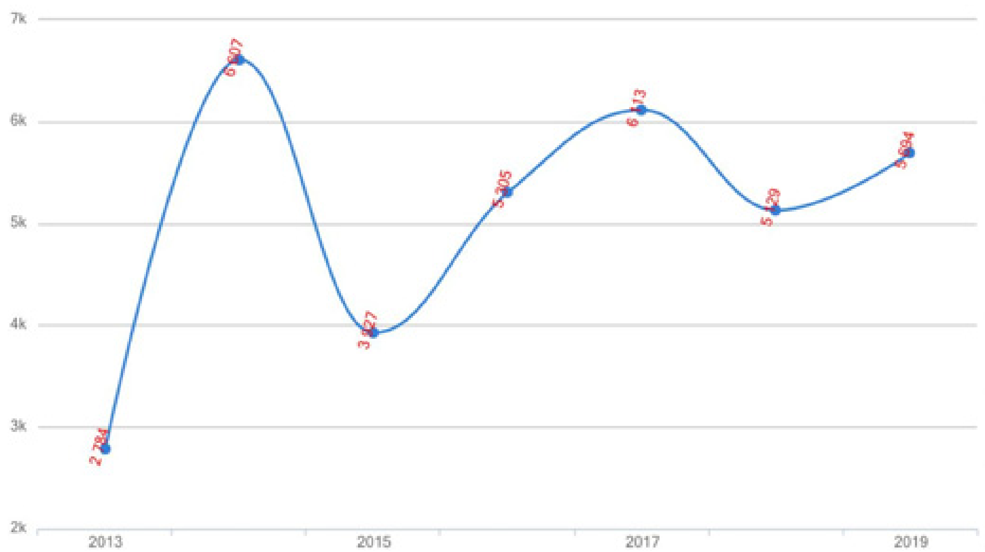

Figure 5. Wholesale and retail trade; number of employed people
aged 65+ in the field of car and motorcycle repair, thousand people

Note - Information-analytical system of the Bureau of National statistics Of the Agency for strategic planning and reforms of the Republic of Kazakhstan

Stimulating material interest remains one of the main drivers of the continuation of work activities of older people. Within the framework of economic theory, a pension is one example of income without work. When an individual begins to receive a pension, his economic activity should decrease as a result of the impact of income. If the amount of pension payments is increased, the same effect applies to pensioners. In addition, existing pension payment restrictions in different countries of the world present serious difficulties for researchers in assessing the net impact of income from changes in the size of pensions on the economic activity of older people.

The results obtained show that the employment of pensioners largely depends on the level of pension provision, which is fully consistent with various sociological studies of labor discipline in the older generation

Discussions

The negative consequences of aging can at least be partially offset by measures aimed at mobilizing all reserves of the labor force, including increasing the economic activity of representatives of older groups.

The implementation of the active aging strategy is an effective tool for solving current and future problems in the field of well-being associated with the aging of the population.

Older people have accumulated the potential of education and health today, which provides an objective basis for further expanding their work activity. The task of the state is to help realize this potential by making the widest possible use of available tools that stimulate the supply and demand of older people's labor.

In recent years, most countries have been gradually increasing the retirement age due to an increase in life expectancy and the economic situation, and the change has had a greater impact on women. This process is also a significant factor in the work of the older generation.

Active employment of the older population can be a driver for solving the issues that arise with the demographic aging of the population. However, the labor activity of the “silver generation” can also affect the indicators of youth unemployment, thereby increasing the number of NEET youth, i.e. young people who are not engaged in labor and educational processes.

Equally important is the fact that in recent years, the participation of young people in industry segments similar to older generations has been declining, changing the vector of labor activity, thereby giving way to jobs for the older age group. Thus, the competition between the older and younger generations in the labor market is not significant.

There are several main drivers that affect the aging process: an increase in life expectancy and a decrease in the birth rate. Studying the aging process of the population as a whole as an increasing phenomenon in society, it is necessary to take more account of all the results of the current demographic changes in order to make this process a driver of the social formation of the state, which can affect the acceleration of socio-economic progress.

In developed countries, various forms and methods are used to stimulate the employment of the elderly. In most countries, reforms have been implemented in recent years to continue the work activity of older people.

The National Concept of Social Development of the Republic of Kazakhstan until 2030 defines the main socio-economic conditions for the development of human capital. And one of the tasks of the social development model of Kazakhstan is to ensure a decent life for elderly citizens. Thus, elderly citizens will be provided with new opportunities for self-realization. The pension system will guarantee the preservation of the socio-economic status acquired in the course of work, at retirement. Every person, regardless of their life achievements, will have the opportunity to lead a decent lifestyle at the expense of pension savings. Persons of all ages will have the opportunity to participate in the socio-economic life of society. Self-realization of older people will allow them to preserve and use the invaluable life and professional experience they have accumulated, and to improve their standard of living [15]. Kazakhstan has approved the National Action Plan for Improving the situation of older Citizens "Active Longevity" in the Republic of Kazakhstan until 2025 [16].

Conclusions

In the future, the problem of employment of the population will manifest itself as a social problem. The involvement of older people in the national economy should be determined not by the peculiarities of the current demographic situation, but by the need and interests to maximize the use of the Labor potential of all members of society, the need to consider labor activity of retirement age as an element of the lifestyle formation of the older generation, where the role of labor as a factor of active longevity occupies a special place.

In general, the global world is looking for new sources of growth, and one of them is the development of the "silver economy" (that is, an economic model within which a significant place is given to the real elderly). By remaining in the labor market, older people will increase their income, finance will become independent, the economy will have an increase in domestic demand, the state budget will have an increase in tax revenues and a decrease in pension expenditures

Kazakhstan is moving along the flow of global trends, which means that the role of older citizens in the economic and social life of the country is increasing. Today, the well - being of many states - financial and social well-being-depends on how comfortable conditions are created for them to realize the professional and intellectual potential of "third-year" citizens. Therefore, foreign experience related to stimulating the social and economic activity of older people is of great interest to Kazakhstani specialists, and first of all, the experience aimed at increasing the labor activity of the older generation is of great importance.

Thus, the importance and role of the older generation in social development and participation in the labor force increases, which justifies the need to create favorable conditions for the realization of its resource potential.

In conclusion, we can say that the state has at its disposal a large set of tools for implementing the employment policy of the older population:

– legislation: anti-discrimination laws, employment protection legislation, changing the parameters of the current pension system;

– financial instruments: influence on the behavior of employees and/or employers , including in kind, through taxes, subsidies (for example, state funding of educational programs for the elderly);

– information campaigns: changing the attitude of society (employers, colleagues) to older employees, including through the media;

– the ability to act as a large employer: that is, the state is a model of attitude to older employees for other sectors of the economy (lack of discrimination in hiring, promotion, training, staff reduction).

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М.Р. Газизова, Ж.С. Хусаинова, Е.А. Вечкинзова

«Күміс ұрпақтың» еңбек ұзақтығының қазақстандық еңбек нарығына әсері

Аңдатпа

Мақсаты: Қазақстандағы аға буынның еңбек белсенділігі контексінде демографиялық үрдістердің еңбек нарығына әсерін зерттеу және қарт адамдардың жұмыспен қамтылу көрсеткіштеріне салыстырмалы талдау жүргізу.

Әдісі: Жүйелік, динамикалық және құрылымдық талдау, корреляциялық талдау әдістері.

Қорытынды: Жүргізілген талдау нәтижелері халықтың қартаю үрдісі егде жастағы халықтың еңбек белсенділігін жандандырады және қарт адамдарды жұмыспен қамтуды ынталандыруды қалыптастыруды айқындайды деген қорытынды жасауға мүмкіндік береді.

Тұжырымдама: Аға буынның еңбек нарығындағы рөлі кеңейді, сондықтан зейнетке шығу жасындағы еңбек белсенділігін аға буынның өмір салтын қалыптастыру элементі ретінде қарастыру қажет, мұнда белсенді ұзақ өмір сүру факторы ретінде еңбек рөлі ерекше орын алады. Еңбекке қабілеттілікті пайдалану үшін қажетті еңбек жағдайларын жасау белсенді ұзақ өмір сүруді қамтамасыз етудің және қарт адамдардың әлеуметтік маңызды қызметке деген қажеттіліктерін қанағаттандырудың ұзақ мерзімді мақсаты болып табылады.

Кілт сөздер: демографиялық өзгерістер, халықтың қартаюы, қарттардың жұмыспен қамтылуы, еңбек нарығы.

М.Р. Газизова, Ж.С. Хусаинова, Е.А. Вечкинзова

Влияние трудового долголетия «серебряного поколения» на казахстанский рынок труда

Аннотация

Цель: Изучить влияние демографических тенденций на рынок труда в контексте трудовой активности старшего поколения в Казахстане и провести сравнительный анализ показателей занятости пожилых людей.

Методы: Использованы методы системного, динамического и структурного анализа, корреляционного анализа.

Результаты: Результаты проведенного анализа позволяют сделать вывод, что процесс старения населения актуализирует трудовую деятельность пожилого населения и определяет формирование поддержки стимулирования занятости пожилых людей.

Выводы: Роль старшего поколения на рынке труда масштабируется, в связи с этим необходимо рассматривать трудовую активность в пенсионном возрасте как элемент формирования образа жизни старшего поколения, где роли труда как фактору активного долголетия отводится особое место. Создание условий труда, необходимых для использования трудоспособности, является долговременной целью в деле обеспечения активного долголетия и удовлетворения потребности пожилых людей в общественно-значимой деятельности.

Ключевые слова: демографические трансформации, старение населения, занятость пожилых людей, рынок труда.

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DOI 10.31489/2021Ec1/57-69
JEL M12, M38
UDC 35.08 (574)

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Features of personnel management in the public service system of the republic of Kazakhstan

Abstract

Object: It is a social relations, developing in the sphere of formation of the civil service in the Republic of Kazakhstan. National and other countries experience indicate that it is impossible to create an effective public service system without developing scientifically based and verified concepts and features of personnel management in the public service system, which would eliminate systemic contradictions in the legal regulation. The growth of scientific interest in the problems of theory and practice of public service has objective grounds of the study.

Methods: Methods of grouping and classification, as well as methods of mathematical modeling, were used in the processing and systematization of data. An econometric model was constructed.

Findings: While investigating the features of personnel management in the system of civil service of Kazakhstan, it was revealed that the civil service is based on certain principles, on the basis of which it is possible to carry out personnel planning to respond to changes in the needs of the public service. The authors hypothesized, there is a relationship between the indicator "Services in the field of public administration; services in the field of mandatory social security" and the factor "The list number of employees in the field, mandatory social security" and "The average monthly salary of civil servants". A regression analysis was performed to prove or disprove this hypothesis.

Conclusions: Based on the analysis we can say with confidence, the hypothesis put forward about the relationship between the indicators in previous stage are confirmed.

The authors comes to the conclusion that the staffing of civil servants is a necessary management process, since the effectiveness of the activities of public authorities is largely determined by the quantity and quality of resources for effective public administration.

Keywords: public service, civil service, governance, development strategy, staffing, communication, innovation, management.

Introduction

The public service is one of the most important mechanisms for shaping public policy, since it is within the framework of this institution that processes are generated that directly affect the direction and content of the political course, the choice of social priorities and the definition of political and economic strategies.

Today, almost all countries of the world take an active position in the framework of legal support for the institution of public service. In each country, the organizational issues of the state apparatus are among the key ones. The Institute of public administration in modern countries thanks to the legislative design has gained quite clear contours that distinguish politicians in the public administration, where one of the most important problems of public personnel management services is the formation and development of personnel potential as a multidimensional and complex process, which shows the relationship of legal, regulatory and procedural aspects and the expected enrichment of many social and managerial settings, first of all, such as the professional growth of employees, changes in their social values, moral attitudes, changes in the age, professional qualification, tender structure of personnel, and other quantitative and qualitative characteristics.

Today, as a result of consistent reforms in Kazakhstan, a unique model has been created based on the principles of meritocracy, efficiency and accountability to society. In the framework of realization of the Plan "100 steps" improved systems of recruitment, training and promotion of personnel, introduce modern human resource management tools to improve the quality of civil servants.

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International experts say that the main condition for success in modernizing the civil service is the political will of the President of the country to develop and strengthen statehood.

Literature Review

Administrative reforms and, in particular, civil service reform in post-Soviet countries in the last 25 years was due not just to the need to implement state-building in the former Soviet republics, but also the influence of global trends associated with the crisis of the welfare state, social tectonic shifts in the modern world, where the emergence of supranational institutions and the development of civil society necessitated a serious transformation of the traditional ("Weberian") model of public administration (Bespalov, 2015).

In their research Dosymbekova R.Sh. focuses on the personnel component in the process of implementing administrative reform, transformation and optimization of state bodies. The issues of organizational efficiency, new technological processes in the activities of civil servants are considered. The formation of Kazakhstan's statehood is closely interrelated with a wide range of issues of theoretical and practical understanding of personnel management in the public service system (Dosymbekova, 2015).

According to Sheluntsov A.M., the improvement of the personnel management system is currently a priority of the strategic goals for the development of the personnel policy of any organization (Sheluntsova, 2018). This issue is particularly acute for state institutions, since at the moment there is an increase in the complexity of all aspects of the functioning of the state body (Suleimenova, 2016).

Constitutional changes in the field of public administration reform in Kazakhstan are links in one logical chain of strategic changes in the policy of forming a strong state (Zhumagulov, 2019).

High-quality public administration should become one of the factors that ensure sustainable economic development, improve the quality of life of the population and increase the overall competitiveness of the state. For Kazakhstan, the significance of the concept of state management is determined primarily by the search for approaches that are adequate to the new realities, aimed at improving the management system, introducing market mechanisms into state and local management structures, as well as developing the economy of Kazakhstan (Kadyrov et al., 2016).

In her research, E. A. Bakhtairova conducts a comparative analysis of the civil service organization systems of Russia's partner countries in the Eurasian economic Union (Belarus, Armenia, Kazakhstan, and Kyrgyzstan). The modern civil service is an institution designed to ensure the fulfillment of state powers, the implementation of laws and functions of the state. After its transformation, which took place in all countries in the post-Soviet space in the 1990s and 2000s, it acquired some common features, which were determined by the ideology of reforming States and their institutions based on the experience of foreign countries, mainly models of the continental and Anglo-Saxon type, while maintaining some differences. Further development of States in the context of modern world trends, the emergence of new challenges in the early XXI century led to changes in the systems of legislation on public service (Bakhtairova, 2019).

Today, the issue of finding ways to ensure the global competitiveness of this integration Association is relevant, where one of the basic factors for ensuring global competitiveness is the effectiveness of state institutions, one of which is the Institute of public service (Meteleva E.R., Anufrieva A.A., Devyatova N.S, 2019).

In accordance with the statement of Baranova S. A., the state service is interpreted as an institution for conducting public Affairs, implementing laws and functions of the state (Baranova, 2018).

The Law of the Republic of Kazakhstan "on public service" does not directly distinguish the types of public service, but it is noted that the law applies to: all civil servants; administrative civil servants appointed by local representative bodies; civil servants undergoing law enforcement service, with the features provided for by legislative acts of the Republic of Kazakhstan on law enforcement service (State Law, 2020).

Conducting research on the main reference models of the Institute of public service, Mamitova N.V. noted that in all States, without exception, the historical experience of the formation and development of the Institute of public service is used. The main attention in the process of state-legal transformations is focused on effective technologies and principles of organization and activity of officials (Mamitova, 2017).

Stelina J. on the basis of system-structural analysis, as well as comparative legal comparison, examines the conceptual foundations of the legal status of civil servants in the legal systems of States, where he considers theoretical models of the legal institution of public service, determining the place of this institution in the legal system (Stelina, 2019).

In his research, Borshchevsky G. A. States that the civil service is a political and administrative institution created to meet the needs for professional execution of political decisions and ensuring daily contact between society and the institutions of political power (Borschevskiy, 2018).

Methods

Public service as a specific, professional activity of a special layer of people associated with the performance of managerial functions in society is based on certain principles, which are expressed in the form of requirements that ensure the functionality of the institution of public service as a whole.

Investigating the features of personnel management in the public service system of the Republic of Kazakhstan, we note that in total, the public service in Kazakhstan consists of almost 100,000 people, the vast majority of whom (almost 98,000) belong to the "B"corps. For a clearer understanding of the division of civil servants into categories, we define their meaning (Figure 1).

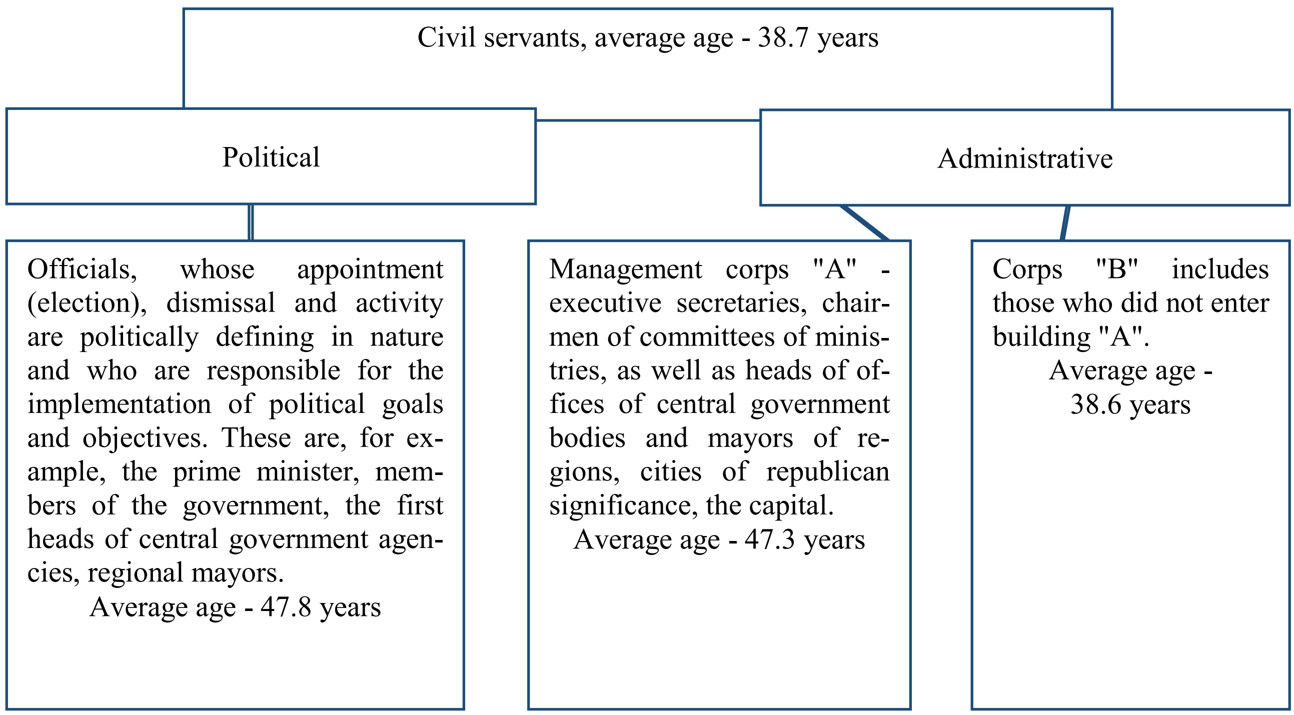

Figure 1. Classification features of civil servants

Note-Compiled by the authors

Exploring the features of personnel management in the civil service system of the Republic of Kazakhstan, we note that in total, almost 100,000 people are employed in the civil service in Kazakhstan, the vast majority of whom (almost 98,000) belong to the "B" corps.

Compared to 2017, the number of employees of the "A" corps has decreased by more than a third: from 519 to 279 people; however, the number of employees of the "B" corps has not changed much. This reduction is more noticeable in Central state bodies (from 207 to 63 people) than in local ones (from 296 to 216 people) (Data of The Agency for Public Service and Anti-Corruption, 2018).

The report "Monitoring the state of civil service personnel" does not contain information on the degree of quantitative and qualitative compliance of personnel in various categories with the tasks set, as well as on the reasons for increasing or reducing the number of certain groups of civil servants (National report, 2020). However, it is noted that the number of civil servants in senior management positions has decreased in Kazakhstan (Table 1) (Data of The Agency for Public Service and Anti-Corruption, 2018).

Table 1. Number of civil servants in senior management positions.

Indicators	2017	2018
Full-time number of civil servants	98272	98499
Politicalcivilservants	433	436
- Corps “A”	519	279
- Corps“B”	97 753	97 784
Civil servants in central government structures	52 616	52 409
Civil servants in central offices	10059	10233
-Politicalcivilservants	326	326
- Corps “A”	207	63
- Corps“B”	9526	9844
- Corps “A” (in territorial divisions)	16	*
- Corps “B” (in territorial divisions)	42541	42176
Localgovernmentstructures	46089	46090
- Politicalcivilservants	107	110
- Corps “A”	296	216
- Corps“B”	45 686	45 764

Note - Compiled on the basis of the source: Agency for Public Service and Anti-Corruption (2018), Monitoring the state of civil service personnel as of 2017-2018, http://kyzmet.gov.kz/ru/pages/monitoring-sostoyaniya-kadrov- gosudarstvennoy-sluzhby-po-sostoyaniyu-na-1-yanvarya-2018-goda

According to the statistics Committee, in the first quarter of 2020, the list number of employees engaged in General public administration, as well as socio-economic management, amounted to 207.6 thousand people. A little less – 203.7 thousand people-are engaged in "providing public services to society as a whole." About a thousand more people are employed in the field of compulsory social insurance (Figure 2) (Data of Information and Analytical Center, 2019).

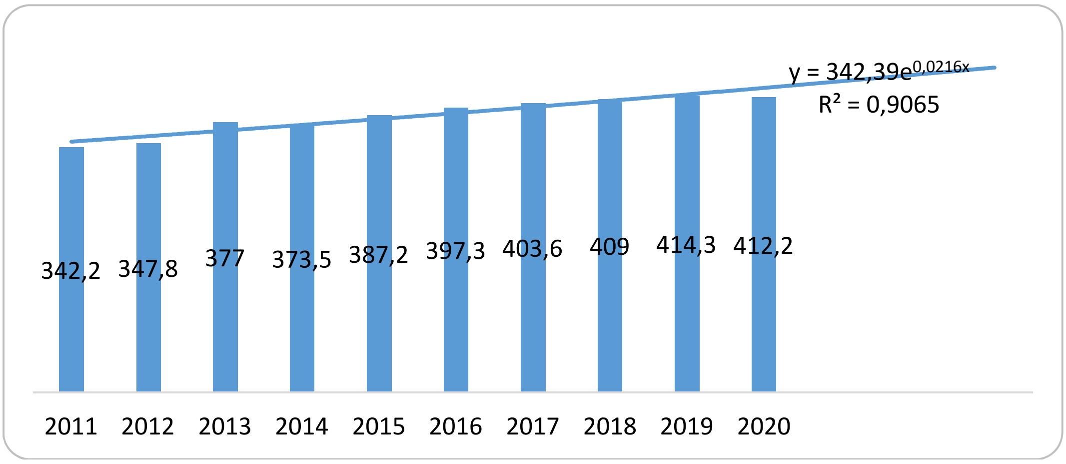

Figure 2. List number of employees in the sphere of "Public administration and defense; mandatory social security" at the end of the 1st quarter of 2020, thousands of people

Note-Compiled on the basis of the source: Electronic resource: Data Of the Committee on statistics of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz

Thus, the total number of employees in the sphere of "Public administration and defense; mandatory social security" is 412.2 thousand people. And this does not include teachers, doctors, or employees of cultural objects.

For example, the population of the Republic as of April 1, 2019 was 18 million 690 thousand people. Therefore, on average, there is one civil servant for every 44 people in the Republic (including infants and the elderly). In addition, in comparison with October-December 2019, the list number increased by 0.3% -

this is approximately 1.2 thousand people. But over the year, the number decreased by 0.5%. Civil servants make up 10.8% of all employees in the Republic.

Results

The author hypothesized that there is a relationship between the indicator "Services in the field of public administration and defense; services in the field of mandatory social security" and such factors as "The list number of employees in the field of "Public administration and defense; mandatory social security" and "The average monthly salary of civil servants". To prove or refute this hypothesis, a regression analysis of statistical data was performed (Table 2) (Data of the Committee on Statistics, 2019).

Table 2.Indicators characterizing public administration in the Republic of Kazakhstan for the period from 2011-2019

Year	Services in the field of public administration and defense; services for compulsory social security, milliontenge	The list number of employees in the sphere of "Public administration and defense; mandatory social security", thousandpeople	Average monthly salary of civil servants, thousandtenge
2011	1 009 479,90	342,2	90
2012	1 225 449,90	347,8	95,6
2013	1 386 994,20	377	96,4
2014	1 516 375,20	373,5	98,6
2015	1 708 422,40	387,2	100,4
2016	1 645 153,20	397,3	109,9
2017	1 814 341,00	403,6	112,6
2018	1 948 244,80	409	123,4
2019	2 316 089,20	414,3	134,1
Note-Compiled by the author on the basis of the source: Electronic resource: Data of the Committee on Statistics of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz			

The results of the regression analysis performed using the least squares method are shown in (Table 3).

Table 3. Results of the assessment of the equation of the volume of services in the field of public administration and defense; services for compulsory social security

R	0,972
R^2	0,944
Adjusted R2	0,926
Fischer Test	50,724***
Variables	
Services in the field of public administration and defence services; compulsory social security (million KZT) is the dependent variable	
Constant	-2711701,716***
	Regression coefficients
List number of employees in the field of "Public administration and defense; mandatory social security" (thousand people)	7433,355*
Average monthly salary of civil servants (thousand tenge)	13857,095**
* p<0,1; ** p<0,05; *** p<0,01	
Note - Compiled by the author	

The calculations showed that the value of the multiple correlation coefficient for the model R = 0.972 is close to 1, so we can talk about a strong correlation between the resulting variable and the factors under consideration. The regression equation as a whole, as well as its individual parameters, are statistically significant and reliable, at appropriate levels of significance.

Therefore, having obtained a positive value in the regression equation of the effective indicator, we can say with confidence that our hypothesis about the relationship between the indicator "Public administration and defense services; mandatory social security services" and the factors "List number of employees in the field of Public administration and Defense; mandatory social security "and" Average monthly salary of civil servants "is confirmed.

We estimate the degree of influence of each factor on the resulting variable, for which we calculate the average elasticity coefficients for the aggregate:

$$E_1=1.761\%,\ E_2=0.914\%$$

The results obtained indicate that the factor "List number of employees in the field of Public administration and defense; mandatory social security" has a greater impact on the volume of services in the field of public administration and defense; services for mandatory social security than the factor "Average monthly salary of civil servants".

Most OECD countries have a human resources planning system that ensures that there is sufficient human resources to provide the necessary public services. Kazakhstan is one of the countries where there are no orderly HR planning processes. HR planning helps you anticipate the future and respond to changing public service needs in cost-effective ways. If we consider by type of economic activity, the situation is as follows (Figure 3) (Data of Information and Analytical Center, 2019).

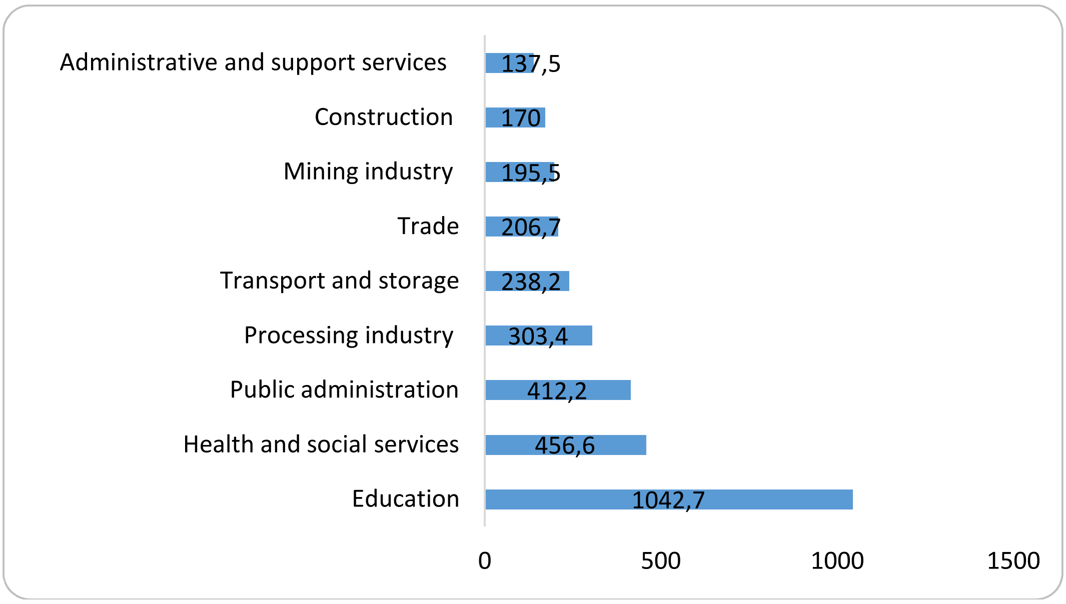

Figure 3. Types of economic activities with the largest number of workers (thousand people per 1sq. 2020)

Note – Compiled on the basis of source: Electronic resource: the Data of the statistics Committee of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz

In the public administration and defense a third more workers than in the whole manufacturing industry, twice that in trade and 6 times more than in agriculture.

The results of the evaluation of the effectiveness of human resources management in public bodies of Kazakhstan, conducted by the Astana hub in the field of civil service and the United Nations development Program (UNDP), allow us to conclude that in terms of the number of civil servants, human resources potential is a problem for the country's public administration.

The nature of education of civil servants in Kazakhstan is quite diverse, which can be considered an advantage, since public procurement requires versatile skills. The majority of civil servants with higher education studied Economics or business (37.5%) or law (25.3%). Other popular areas of education include technical Sciences and technology (9.3%) or education (7.5%).

If we consider the regional aspect, the list number of employees employed in public administration is as follows (Figure 4) (Data of Information and Analytical Center, 2019).

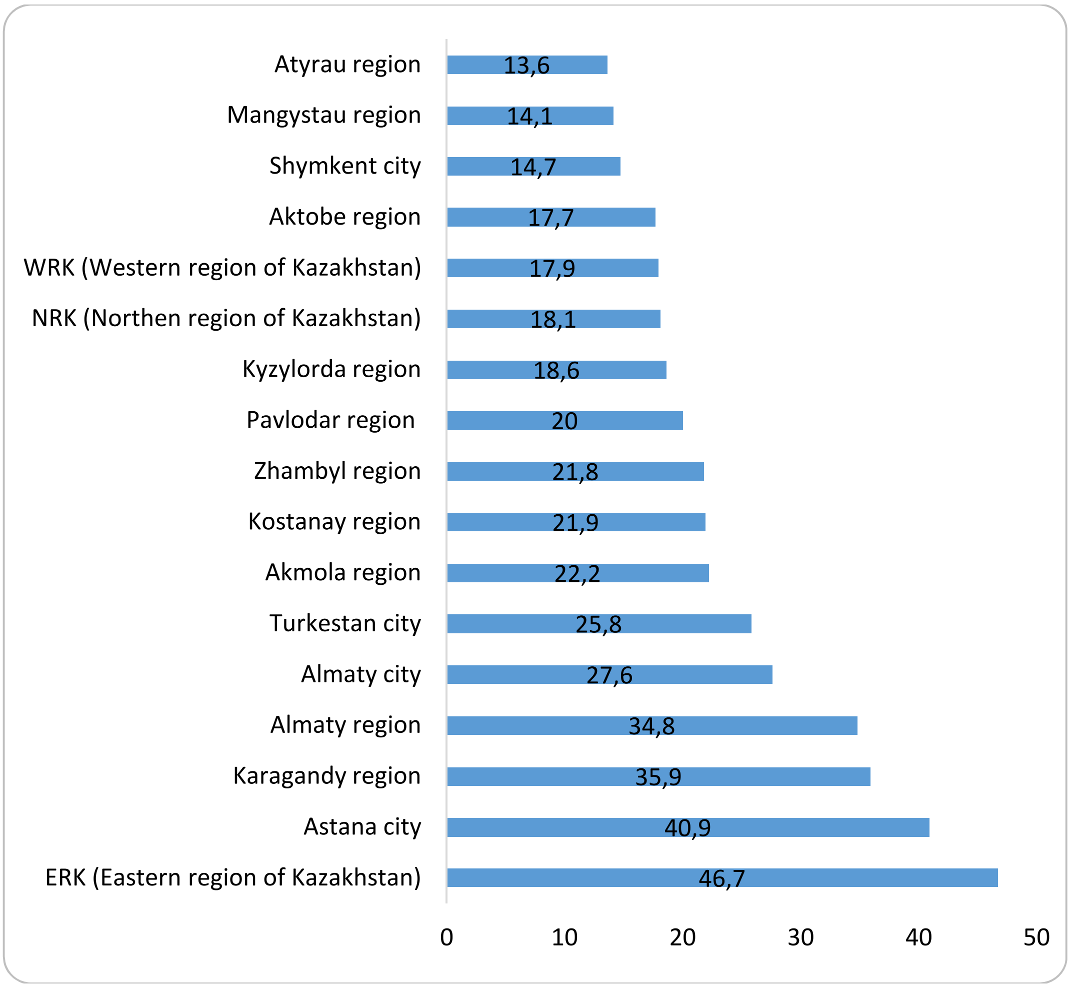

Figure 4.Payroll number of workers employed in government administration
in the regions of Kazakhstan (thousand people per 1sq. 2020.)

Note – Compiled on the basis of source: Electronic resource: the Data of the statistics Committee of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz

Nur-Sultan located both for the city and Republican authorities. Therefore, the number of civil servants in the capital is large – 40.9 thousand people. But this region is not a leader – there are almost 15% more of them in the East Kazakhstan region.

In the North Kazakhstan region, the region with the smallest population, there are a quarter more civil servants than in Shymkent – a city of national significance, which has twice as many people as in the entire North Kazakhstan region.

In the two-million-strong Almaty region, there are 35% more officials than in the Turkestan region, where only 38 thousand fewer people live

In the Turkestan region, there are 12.8 civil servants per 1000 inhabitants, and in Almaty and Shymkent – just over 14. In Nur-Sultan – more than 35, East Kazakhstan and North Kazakhstan regions-more than 33.

If we consider the situation in the size of the gender, men significantly predominate. Their list number at the end of the first quarter was 262 thousand people against 150.3 thousand women. Moreover, there is no area where the situation was the opposite.

The most "male" regions are located in the South: the share of women in the civil service in Shymkent is 23.8%, in the Turkestan region-26.7%, in Almaty – 31.5%. The highest percentage equality is in the Pavlodar region, where the share of women is 46.5% (Figure 5) (Data of Information and Analytical Center, 2019).

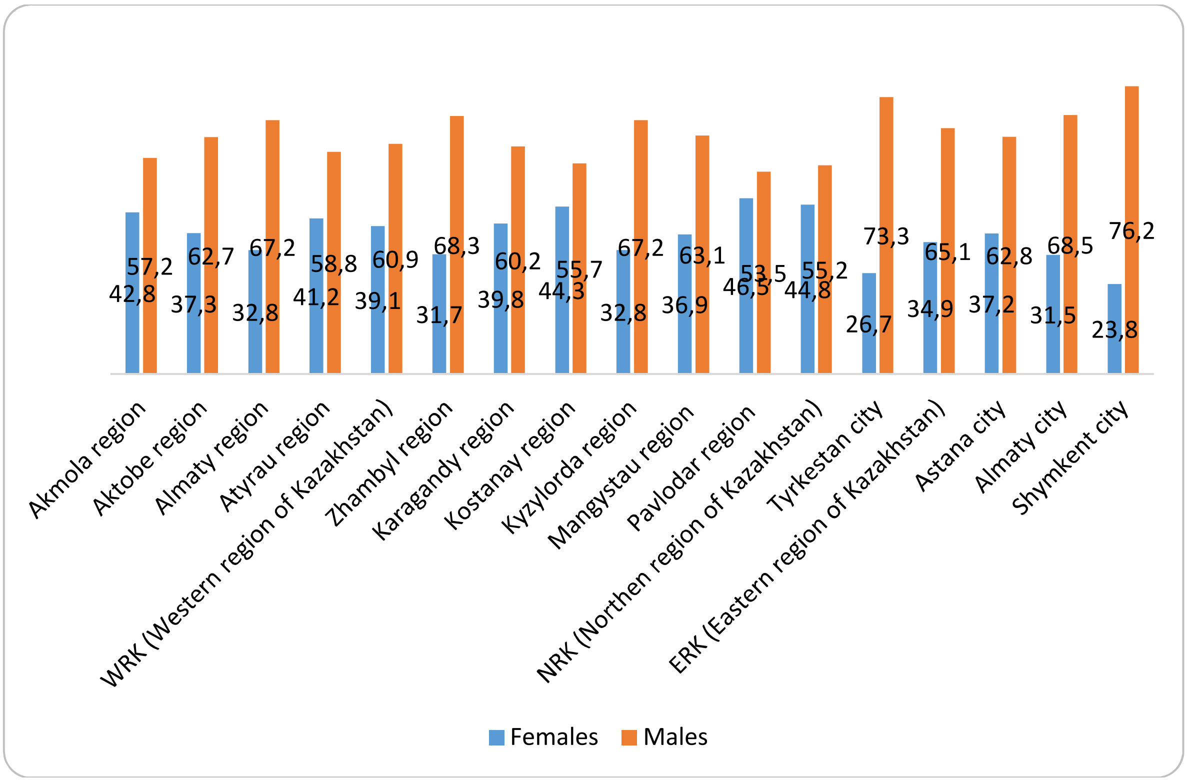

Figure 5.Share of employees employed in public administration by regions of Kazakhstan by gender (in 1q20)

Note-Based on the source: Electronic resource: Data Of the Committee on statistics of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz

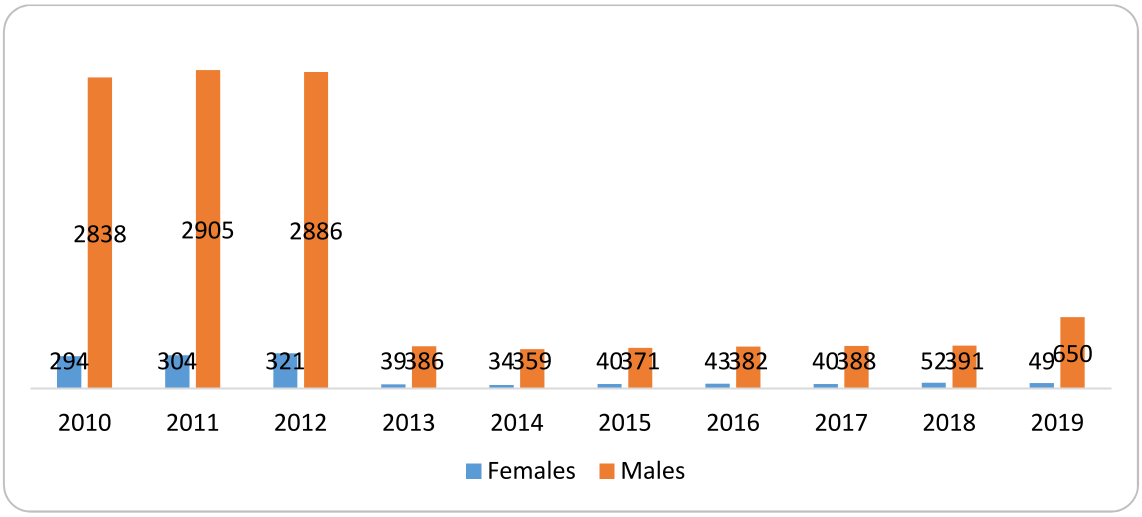

Figure 6. Total civil servants by gender for the period from 2010-2019, people

Note-Compiled on the basis of the source: Electronic resource: Data Of the Committee on statistics of the Republic of Kazakhstan for 2011-2019. //www.stat.gov.kz

More than 50% of all employees are under the age of 34. The share of young people only in financial and insurance activities is higher (54.2%). At the same time:

– there are more civil servants under the age of 24 than employees of information and communications, financial and insurance activities, and real estate operations combined;

– at the age of 24-28 years-more than in health care, mining, professional, scientific and technical activities;

– at the age of 29-34 years-more than in the manufacturing industry.

The share of employees aged 45-54 years is only 15% - there is no less in any other type of economic activity. There are only 6% of pre-retirement employees in the state administration. This is almost half as much as in healthcare and industry.

At the same time:

– more men work in the public service than in the mining sector, education, water and electricity supply;

– there are more women in the civil service than in the catering, hotel sector, transport companies, administrative and auxiliary services, as well as in the field of entertainment and recreation.

According to experts, today the Kazakh public service meets international standards in many respects, and is ahead of them in some respects. Thus, Kazakhstan, unlike a number of developed countries, has avoided the problem of aging of the state apparatus and gender imbalance. Today, the average age of a civil servant is 39, compared to 44 in 1991. 55% of women work in the civil service in Kazakhstan, while in Italy, Belgium, and Spain this figure is 50% (Data for *Benchmarking Civil Service Reform, 2018*).

"OECD experts assess Kazakhstan's public service as professional, with strategic elements. In practice, this means that-due to the fact that the principle of meritocracy has been introduced for civil servants. Personnel selection is based on competencies, and ethical requirements are standardized. As for the strategic elements, our system is characterized by attractiveness, as well as the ability to quickly respond to changes (Data of Information and Analytical Center, 2019).

In the current year 2020, in order to further improve the selection tools for the administrative public service, taking into account the recommendations of the OECD, the following tasks are proposed::

- introduction of direct competitive selection for corps a positions, which minimizes the possibility of politicization of such appointments and will help attract professionals from the private sector;
- working out a step-by-step transition from checking the candidates of the corps "B" for knowledge of the law in favor of determining their level of competence, while expanding the Agency's role in the selection for public service.

As measures aimed at further improving the public service system and ensuring the transition to the next stage of development of the state apparatus-the strategic innovation model, the following should be attributed:

1) study the possibility of introducing strategic personnel planning, as well as institutional improvement of the civil service;

2) working out the issue of introducing the practice of moving on the "center-region" principle for employees of the highest Central state bodies with the possibility of returning to the sending body;

3) modernizing the selection system for posts of corps "A" with the introduction of direct competition, and the transition from the verification of candidates for corps "B" on the knowledge of the law in favor of determining their level of competence by expanding the Agency's role;

4) continue work on optimizing the expenses of state bodies and subordinate organizations for the transition to a new system of remuneration;

5) elaboration of the issue of conceptual revision of the Law "on public services", including the introduction of the concept of " socially significant service»;

6) study of the optimal ratio of industry and support personnel, the feasibility of introducing the Institute of contract civil servants;

7) working out the issue of building an optimal management structure for the state apparatus, retaining strategic and regulatory functions for state bodies, and transferring implementation functions to subordinate organizations.

Conclusions

The current stage in the country's development, the high turbulence of the global situation, the steadily increasing gap between developed and developing countries, and, as a result, the complexity and versatility of the tasks facing Kazakhstan, require qualitatively new approaches to public administration, where an effective state personnel policy should become a powerful tool for transforming the state's activities in all areas.

The results obtained indicate that the factor "List number of employees in the field of Public administration and defense; mandatory social security" has a greater impact on the volume of services in the field of public administration and defense; services for mandatory social security than the factor "Average monthly salary of civil servants".

The formation of a modern, professional and Autonomous state apparatus and its continuous improvement is one of the decisive factors for the further stable and progressive development of Kazakhstan, as well as its response to global challenges.

Thus, based on the analysis of the state of public service personnel, several goals can be identified, the implementation of which will significantly increase the efficiency of personnel work in state bodies and increase the level of professionalism of employees:

– first, a competitive environment should be created in the system of the state apparatus with the involvement of modern technologies and high innovation management;

– secondly, it is necessary to ensure a close two-way relationship with civil society, which implies a deep involvement of state authorities and the General public in the formation of regulations governing the activities of the civil service.

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Ю. Ким, А. Омарова

Қазақстан Республикасының мемлекеттік басқару жүйесіндегі персоналды басқару ерекшеліктері

Аңдатпа:

Мақсаты: Қазақстан Республикасында мемлекеттік қызметтің қалыптасуы мен қызмет ету саласында дамып келе жатқан әлеуметтік қатынастар, ұлттық тәжірибе мен шет елдердің тәжірибесі мемлекеттік қызмет жүйесіндегі персоналды басқарудың ғылыми негізделген және тәжірибеде тексерілген тұжырымдамалары мен ерекшеліктерін дамытпай және қолданбай тиімді мемлекеттік қызмет жүйесін құрудың мүмкін еместігін көрсетеді, бұл мемлекеттік қызметті құқықтық реттеудегі жүйелік қайшылықтарды жояды. Осыған байланысты, Қазақстан Республикасындағы мемлекеттік қызметтің теориясы мен практикасы мәселелеріне ғылыми қызығушылықтың өсуінің объективті негіздері бар.

Әдісі: Деректерді өңдеу және жүйелеу кезінде топтау және жіктеу әдістері, сондай-ақ математикалық модельдеу әдістері қолданылды. Эконометриялық модель жасалды.

Қорытынды: Қазақстан Республикасының мемлекеттік қызметі жүйесіндегі персоналды басқару ерекшеліктерін зерттей келе, мемлекеттік қызмет белгілі бір қағидаттарға негізделетіндігі анықталды, олар тұтастай алғанда мемлекеттік қызмет институтының функционалдығын қамтамасыз ететін талаптар және олардың негізінде Қазақстан Республикасы Статистика комитетінің деректері бойынша талданған жіктеу белгілері көрсетілген. Жұмыс күшін жоспарлау болашақты болжау және өзгертілетін мемлекеттік қызмет қажеттіліктеріне үнемді тәсілдермен жауап беру үшін қабылдануы мүмкін. Авторлар «мемлекеттік басқару және қорғаныс саласындағы қызметтер; міндетті әлеуметтік қамсыздандыру жөніндегі қызметтер» көрсеткіші мен «мемлекеттік басқару және қорғаныс; міндетті әлеуметтік қамсыздандыру саласы қызметкерлерінің тізімдік саны» және «мемлекеттік қызметшілердің орташа айлық жалақысы» сияқты факторлар арасында өзара байланыстың болуы туралы гипотеза ұсынды. Бұл гипотезаны дәлелдеу немесе жоққа шығару үшін регрессиялық талдау жүргізілді.

Тұжырымдама: Жүргізілген талдау негізінде нәтижелі көрсеткіштің регрессия теңдеуінде оң мәнге ие бола отырып, «мемлекеттік басқару және қорғаныс саласындағы қызметтер; міндетті әлеуметтік қамсыздандыру жөніндегі қызметтер» көрсеткіші мен «мемлекеттік басқару және қорғаныс саласы қызметкерлерінің тізімдік саны; міндетті әлеуметтік қамсыздандыру» және «мемлекеттік қызметшілердің орташа айлық жалақысы» факторлары арасында байланыстың болуы туралы гипотеза расталады деп сеніммен айтуға болады. Авторлар мемлекеттік қызметшілердің штаттарын жинақтау басқарудың қажетті процесі деген тұжырымға келген, өйткені мемлекеттік органдар қызметінің тиімділігі көбінесе тиімді мемлекеттік басқару үшін ресурстардың саны мен сапасына байланысты анықталады.

***Кілт сөздер**:* мемлекеттік қызмет, мемлекеттік саясат, даму стратегиясы, кадрлармен қамтамасыз ету, коммуникация, инновация, заманауи технологиялар, басқару.

Ю. Ким, А. Омарова

Особенности управления персоналом в системе государственной службы Республики Казахстан

Аннотация

Цель: Общественные отношения, складывающиеся в сфере формирования и функционирования государственной службы в Республике Казахстан, национальный опыт и опыт зарубежных стран указывают на невозможность создания эффективной системы государственной службы без разработки и применения научно обоснованных и выверенных на практике концепций и особенностей управления персоналом в системе государственной службы, которые бы позволили устранить системные противоречия в правовой регламентации государ-

ственной службы. В этой связи рост научного интереса к проблемам теории и практики государственной службы в Республике Казахстан имеет объективные основания.

Методы: При обработке и систематизации данных применялись методы группировок и классификации, а также математического моделирования. Была построена эконометрическая модель.

Результаты: Исследуя особенности управления персоналом в системе государственной службы Республики Казахстан, было выявлено, что государственная служба основывается на определённых принципах, которые выражаются в виде требований и классификационных признаков, на основе которых можно осуществлять кадровое планирование, способствующее прогнозированию ситуации в будущем и реагированию на изменение потребностей государственной службы экономически эффективными способами. Авторами была выдвинута гипотеза о наличии взаимосвязи между показателем «Услуги в области государственного управления и обороны; услуги по обязательному социальному обеспечению» и такими факторами, как «Списочная численность работников сферы «Государственное управление и оборона; обязательное социальное обеспечение» и «Среднемесячная заработная плата государственных служащих». Для доказательства или опровержения этой гипотезы был проведен регрессионный анализ.

Выводы: На основе проведенного анализа, получив положительное значение в уравнении регрессии результативного показателя, можно с уверенностью сказать, что выдвинутая гипотеза о наличии связи между показателем «Услуги в области государственного управления и обороны; услуги по обязательному социальному обеспечению» и выявленными факторами подтверждается.

Авторы приходят к выводу о том, что укомплектование штатов государственных служащих является необходимым процессом управления, так как результативность деятельности органов государственной власти во многом определяется тем, каково количество и качество ресурсов для осуществления эффективного государственного управления.

***Ключевые слова**:* государственная служба, государственная политика, управление, стратегия развития, укомплектованные штаты, коммуникация, инновации, современные технологии.

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DOI 10.31489/2021Ec1/70-82
JEL E24, J23, J68
UDC 06.77.61

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Study of current trends in the labour market: changes caused by digital technologies and the COVID-19 pandemic

Abstract

Object: To study the current state and priorities of the labour market in the digital economy and the COVID-19 pandemic.

Methods: *The* theoretical basis of the research is the work of domestic and foreign economists on the problems of the digitization of the labour market and the legislative and regulatory acts of the Republic of Kazakhstan. Data from the Statistical Committee of the Ministry of Economy of the Republic of Kazakhstan and the results of the authors' research have been compiled as an information base for the study. The methodological basis of the study is a systematic approach, abstract-logical, economical-statistical, monographic methods of studying economic processes.

Findings: This article contains the results of an analysis of the labour market development of the Republic of Kazakhstan in comparison with foreign countries. Employment in the digital economy and the CORONA crisis are discussed. It is noted that the faster the digital economy is implemented, the more difficult it is to manage the digital economy. Technology is becoming not only an engine for the development of new industries, but also an important social role, making a significant contribution to the solution of societal problems such as population ageing, social stratification, environmental problems and climate change. With the help of advanced science and technology emerges a «smart» society based on new values oriented to the needs of the person, flexibility, creativity. As a result of digitization, the labour market, health care, education and spatial development are changing dramatically.

Conclusions: The article discusses key aspects of the creation of conditions for the search for new forms of employment for the Kazakh economy from the standpoint of digitization. The emphasis is on the development of the digital environment in the modern environment. The content of state support of economic entities within the framework of the state program «Digital Kazakhstan» is considered. It was concluded that the changes brought about in the world economy by widespread restrictions in the context of the pandemic would lead to the search for new ways and forms of employment in the Kazakh labour market.

Keywords: digital economy, labour market, employment, digitization, pandemic.

Introduction

Today, the period of development of the world economy is commonly referred to as a crisis. Many of the areas that have been performing very well in recent years are either not fully operational or have significantly reduced their activity. On the agenda, the number one theme was the COVID-19 pandemic, the culprit of social exclusion, which led to dramatic changes in the business environment in both Kazakhstan and the world economy. The quarantine in Kazakhstan has caused significant damage to business and jobs. Thus, as of 4 May 2020, 4 million 452 thousand social benefits had been granted from the State Social Insurance Fund for loss of income during the state of emergency. Thus, 4 million 452 thousand social benefits had been granted from the State Social Insurance Fund for loss of income during the state of emergency. Of these, 3,733,800 in the first month and 718,300 in the second month.

At present, the main success in combating the dangerous virus is that the number of cases in Kazakhstan is not growing exponentially. The World Health Organization, as well as international experts, have commended the actions taken by the Government.

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The support of the State during such a difficult period is very important for all citizens of the country. The Ministry of Industry and Infrastructure of the Republic of Kazakhstan has developed a mechanism to assist citizens of regions where quarantine has been introduced.

Effective small and medium-sized business is a solid foundation for the development of a country. It is entrepreneurship that can reduce unemployment, create a tax base, and strengthen local budgets. Of course, to support small and medium-sized businesses, first of all, strategic programs developed earlier come to the aid of the state.

The article is intended to confirm the working hypothesis that in Kazakhstan today, the rapid development of digital technologies in the economic and social sphere requires effective mechanisms for State regulation of employment in digital business in the context of a pandemic.

Literature Review

With international digital and informatization entering an era of greater diffusion of innovation and information through cross-border innovation and accelerated development, the digital economy has indeed become a new engine of economic growth (Curran, 2018; Gomber et al., 2018; Brignolfsson, Collis, 2019). The term «digital economy» was introduced at the end of the 20th century by American scientist Nicholas Negroponte in 1995, and its scientific content was expanded by Canadian Don Tapscott in 1997 (Gretchenko, 2018). The phenomenon of the digitization of the economy was highlighted against the background of the rapid growth in the use of Internet resources and the introduction of modern information and technology-based means of communication for the transfer of various social and economic activities, such as commerce and business, education, media, etc., in an electronic Internet environment.

Mergel, I., Edelmann, N., & Haug, N. notes that digital transformation changes the existing bureaucratic and organizational culture, thereby improving relations with stakeholders (Mergel I., Edelmann N., & Haug N., 2019). Warner, K. S., & Wäger, M. define digital transformation as the use of new digital technologies such as mobile technology, artificial intelligence, cloud technology, blockchain technology, and Internet of Things to bring about significant improvements in business, improve customer service, optimize operations or create new business models (Warner K. S., & Wäger M., 2019).

In recent years, the digital economy has advanced significantly not only in the Western world, but also in Asian countries, stimulating the integration of digital technologies and traditional economic activities (Ali et al., 2018; Taglioni and Winkler, 2016).

In the opinion of Lapidus L.V., represented in the work, the period since 2015 the world digital space is characterized as «Digital Fever», in which chaotic restructuring of business processes and transformation of business models under the influence of technologies of Industry 4.0 is taking place (Lapidus L.V., 2019).

This time is characterized by the fact that since 2017, many countries have adopted digital strategies and other programs on digital transformation, creation of competence centers of digital economy, silicon valleys, «regulatory sandbox». In this connection, the topic of the formation and development of digital forms of employment in the Republic of Kazakhstan is of particular relevance today.

Methods

A study aimed at supporting the hypothesis can be described as descriptive, making it possible to select the methods to be used.

The use of the institutional method will make it possible to assess the role of the legal framework governing the labour market, as well as State programmes in the digital economy and social sphere, in increasing employment in digital business through norms and regulations, which are its main contents.

The application of systematic analysis will make it possible to consider employment in digital entrepreneurship as a result of the functioning of the socio-economic system and to identify the factors determining its structure at the current stage of development of Kazakhstan, as well as to make cross-country comparisons.

In the formation of the theoretical basis and methodological base, the works of classical and contemporary foreign and domestic economists and specialists in the theory of entrepreneurship, anti-crisis management and the development of the digital economy were studied. The scientific literature on the problem of research has been critically reviewed. This phase involves the use of classification and systematization techniques, analogies and comparisons. It is important to observe the methods of historical and logical knowledge in order to assess economic processes in general and draw general conclusions.

Findings

In Kazakhstan, prior to the quarantine period, a number of measures had been taken to digitize the economy, both by the State and by business entities. Much has been done in this regard. But the conditions of the pandemic have led to a dramatic increase in the digitization of the business model and the development of a new environment, the digital environment. Some segments of the economy, previously mostly existing offline, have made a «leap into the digital future» within a few months. The momentum generated by the epidemic has resulted in widespread digitization almost automatically. The external business environment has changed lightly, while changing the structure of the business itself, primarily affecting employment.

The Strategic Plan for the Development of the Republic of Kazakhstan until 2025 also provides for the growth of the economic activity of the private sector as one of its priorities, in particular, it is planned to: That the share of the gross value added of small and medium-sized enterprises in GDP will increase from 26,8 % in 2016 to 35 % by 2025 and reach 50 % in 2050.

In comparison, small business in the advanced economies of Europe, North America, and Asia is already at the core of the socio-economic development of these countries. For example, there are over 23 million small and medium-sized enterprises in the European Union, which account for more than half of total turnover and value added, and about 70 % of the employed population.

According to the data of the Statistical Committee of the Ministry of National Economy of the Republic of Kazakhstan, the total number of the able-bodied population in the period 2015-2019 was: 8,887,600. In 2016 – 8,998,800. In 2017 – 9,027,400. 2018 – 9138.6 thousand people. 2019 – 9221.5 thousand people (Figure 1).

In 2015, 8,433,300 persons were employed in various areas of the economy of Kazakhstan. In 2016, 8,553,400 persons were employed. In 2017, 8,585,200 persons were employed. In 2018, 8,695,000 persons were employed. In 2019, 8,780,800 persons were employed. The number of workers employed in Kazakhstan in 2019 was 6,681,500. This represents 76,1 % of the total number of employees in the economy. This figure rose by 6.1 % from 2015. The number of self-employed persons in 2019 was 2,099,200, i.e. 23,9 %. This figure fell by 1.8 % relative to 2015. In the various sectors of the economy, 91,1 % of the total number of self-employed persons were engaged in productive employment and 90,7 % in 2018. Unproductive employment accounted for 8,9 % and 9,3 % in 2018.

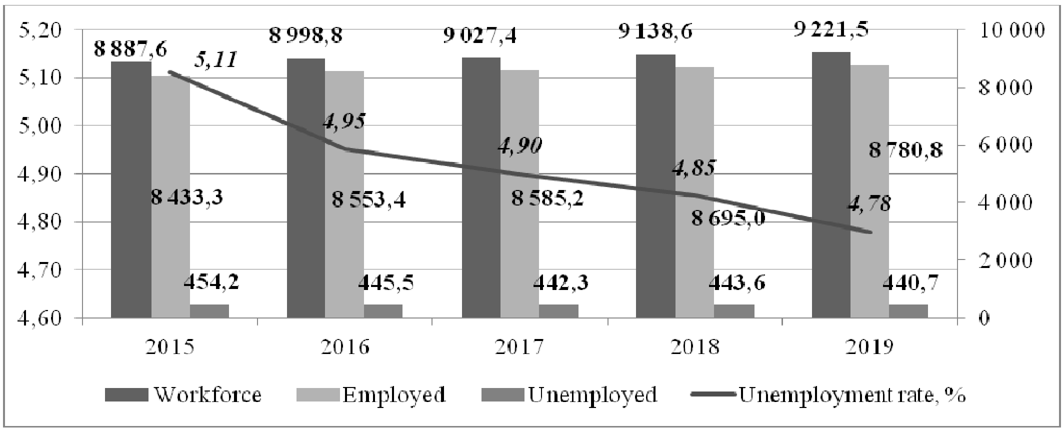

Figure 1. Laboure market indicators 2015-2019 in the Republic of Kazakhstan

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

The average unemployment rate between 2015 and 2019 was 4.92 %. In 2019, the figure was 4.78 %, and in 2015 it was 5.11 %. In 2019, 46.4 % of men and 53.6 % of women were unemployed. The youth unemployment rate in the 15-28 age group was 3.7 %.

According to the analysis of the Head Hunter Research Centre, over the past three years, the most demanded persons on the Kazakh labour market have been in the following professions: sales (18.2%), accounting, management and finance (8.3%)Administrative staff (7.2 %), information technology, Internet and telecom (6.5 %), as well as banks, investments and leasing (6.5 %).

The top 10 cities in the distribution of vacancies are headed by Almaty, Nur Sultan and Karaganda. Few are second to Atyrau and Shymkent. Ust-Kamenogorsk, Pavlodar, Kostanai, Aktobe and Uralsk are closing the list of cities - leaders in job placement.

Among the applicants, the most sought-after professional areas are sales (12.9%), administrative personnel (8.4%), accounting, management accounting, enterprise finance (8.3%), production (5.9%). At the same time, 19.1 % were in fields suitable for beginners and students. The top cities in the CV distribution are almost identical to the job placement list, but Kostanai joins the leaders.

In an article by Zamira Zholdaskyzy an analyst at the Labour Resources Development Centre of the Republic of Kazakhstan, a member of the CABAR. Asia School of Analysis from Nur Sultan, having conducted a labour market analysis for 2019, notes that the labour market in Kazakhstan today is dominated by a large number of specialists in humanitarian fields and a shortage of technical personnel, Therefore, foreign labour specialists are a temporary alternative solution to meet the needs of enterprises for highly skilled labour rapidly (ZHoldasкysy, Z., 2019). Kazakhstan has various types of unemployment, such as natural and cyclical unemployment. There is evidence, such as the lack of a job opportunity due to a mismatch in the labour market in terms of skills or qualifications.

The highest unemployment rate in 2019 was registered in the south of the country – in Almaty, Shymkent and Turkestan region (5.2 %). These regions are labour-intensive and self-employed, and the level of training of the unemployed does not meet the needs of employers. Unemployment is low in the western part of the country in the Atyrau and Mangistau regions (4.6 %) and the Csos (4.5 %). Oil production and oil and gas engineering are mainly developed in these regions. According to geographical indications, the majority of the unemployed (58 %) live in cities of Kazakhstan and the remainder (42 %) in rural settlements.

According to the results of the research of the Joint-Stock Company «Labour Resources Development Centre» of the Ministry of Labour and Social Protection of the Population of the Republic of Kazakhstan (JSC «CRT» MLSSP RK), 71% of the unemployed population have an education (higher education, technical and vocational education), 26 % secondary and 2.2 % incomplete higher education. According to researchers, 26 % have higher education, 2.2 % have incomplete higher education, 45 % have secondary and primary vocational education, and 27 % have secondary education. Women in Kazakhstan are more likely than men to work in specialties on a gender basis: (57 % for women and 53 % for men). Taking into account the superiority of employed men over employed women by 332 thousand, the number of «working in a specialty» of men and women is at the same level. Moreover, specialists with higher education are more likely to work in specialties than cadres with vocational education (VE). Thus, those with higher education work in 84 % of cases, while VE graduates only work in 66 % of cases. A particularly important reason is the lack of work, which is most common in Kazakhstan:

– voluntary dismissal (23 %);
– no job opportunities (22.5 %);
– family reasons (11 %).

Statistics show low unemployment rates in the city of Nur Sultan (4.6 %) and Almaty province (4.7 %). In the survey, the majority of residents of the capital, Nur-Sultan, replied that they had resigned due to the completion of their employment contract (23%), with 21% indicating as reasons: «termination of business activity» and seasonal nature of work (21%). Regionally, the unemployed in the city of Nur-Sultan (31%) and in the Akmola region (20%) are the most prominent among the «completed entrepreneurial activity» among the unemployed.

According to the experts, in Almaty province, the number of people who do not work due to personal circumstances has increased sharply (32 %), while in other regions this figure does not exceed 24 %. According to our country's studies, on average, 20 % of the population surveyed were unemployed in the Aktyubinsk, Atyrau and West Kazakhstan regions because the organization was liquidated or the contract was shortened or terminated. In the western regions of our country, according to the results of the analysis, with the reduction of the number of unemployed persons, more than 26,000 persons are unemployed. The number of unemployed persons in the western regions of our country is estimated at 26,000. The reason is also common among the unemployed in cities of national importance. In Mangistau region, 41 % of the unemployed left their job because of housework and 27 % in Almaty, owing to the predominance of women in the general structure of unemployed regions (70 % and 69 %).

In assessing the level of unemployment in the country, one cannot ignore the number of actors in small and medium-sized enterprises. Take the analysis period for 3 years, including 11 months in 2020, that is, from 2018 to November 2020 (Figure 2).

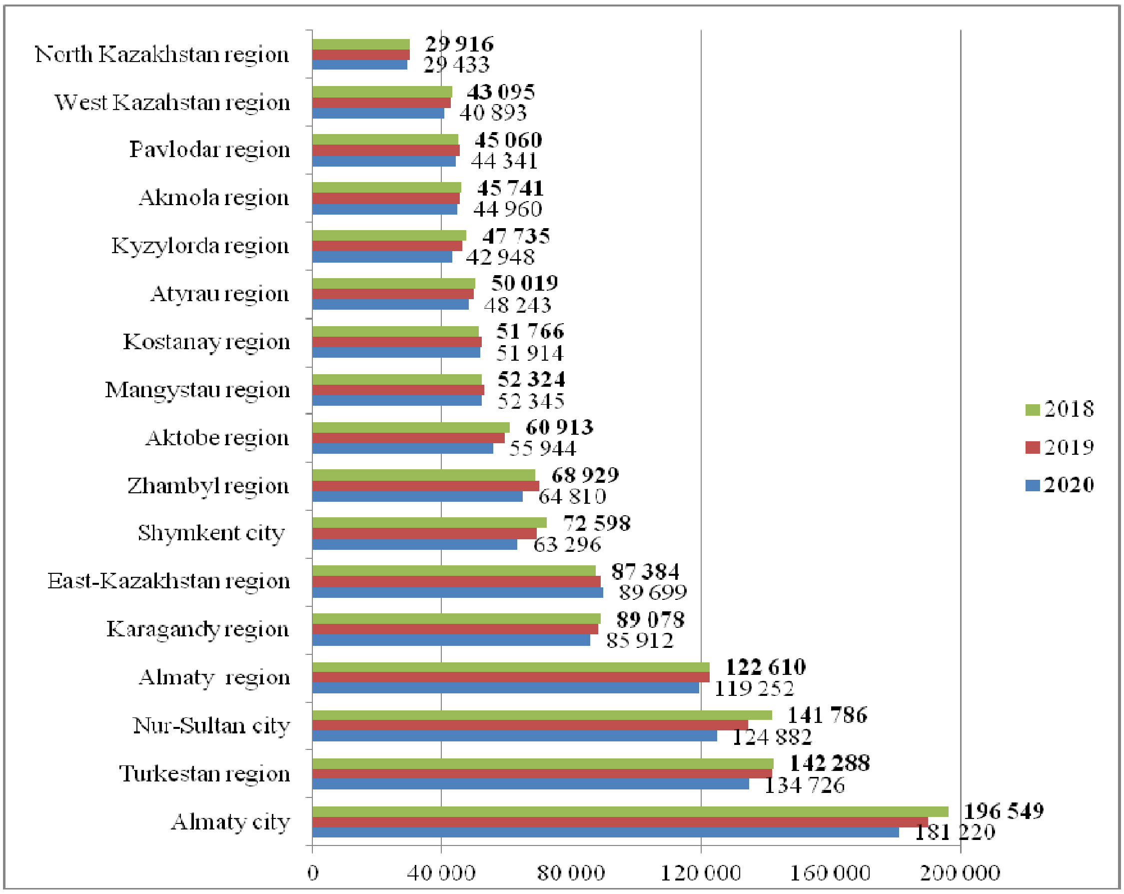

Figure 2. Number of active small and medium-sized enterprises
in the Republic of Kazakhstan from 2018 to November 2020

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

In three years, the number of small and medium-sized enterprises increased in the cities of Shymkent – 14.7 % and Nur-Sultan – 13.5 %, Kyzylorda oblast – 11.1 % and Aktyubinsk oblast – 8.9 %. East Kazakhstan oblast registered a decrease of 2.6 % and Kostanai oblast 0.3 %.

In 2019, 19,549 small and medium-sized enterprises were more numerous in the city of Almaty, 142,288 in the Turkestan region, 141,786 in the city of Nur Sultan and 122,610 in the Almaty region. In North Kazakhstan oblast, the smallest number of entities is 29,916; this figure fell by 0.5 % from 2019. The total number of business entities in the Republic increased by 1.3 % over the period 2020, and the growth rate has not changed.

The increase in the number of subjects of small and medium-sized enterprises is facilitated by the previously analyzed indicators, the increase in the number of dismissals at one's own request, as well as by the unemployment due to: «there is no possibility to find work».

The performance of the State Programme for Employment Development declined in 2019 (Table 1). The share of the labour force with basic, secondary, general and primary education in the labour force was 14.6 %, which is 6.4 % lower in 2018. The share of unproductive workers in the self-employed population was 8.9 %, which is 4.3 % lower than in 2018.

Table 1. Results of the Productive Employment and Mass Enterprise Development Programme for 2017-2019

Indicator	2017	2018	2019
Growth rate of SME actors	103,6	108,3	107
Unemployment rate*	4,9	4,9	4,8
Proportion of the labour force with basic, secondary, general and primary education in the labour force, percentage	19,6	15,6	14,6
Share of unproductive workers in the self-employed	10,4	9,3	8,9

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

According to the data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, the unemployment rate among the active countries of the Eurasian Commonwealth is ranked first in terms of the number of workers by Armenia – 19,2%, followed by Ukraine – 8%, Kazakhstan and Azerbaijan – 4.8%. The lowest unemployment rate in Moldova is 4.3% (Figure 3).

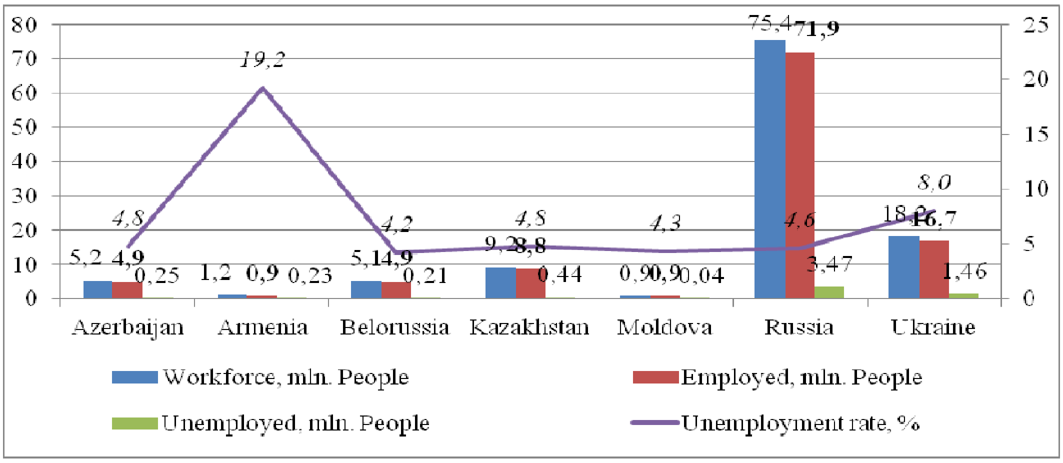

Figure 3. The labour market situation in 2019 among EU countries

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

To complete the estimation of the unemployment rate in the countries of the Eurasian Union, let us give an analysis for 3 years, from 2017 to 2019, the data were also provided by the official website of the Statistical Agency of the Republic of Kazakhstan (Figure 4).

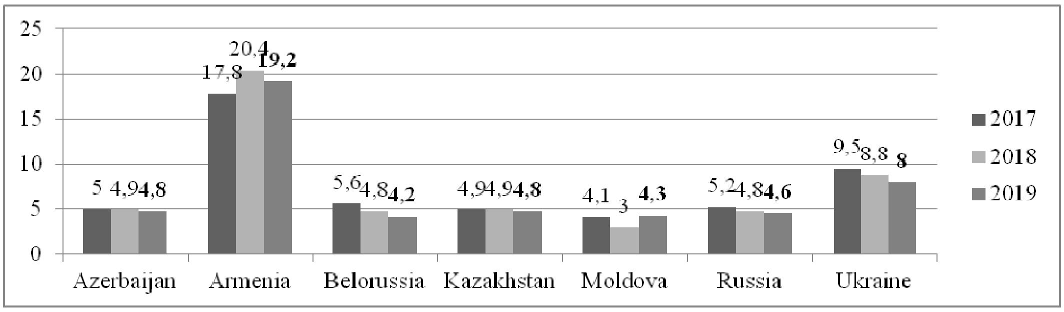

Figure 4. EU unemployment rate 2017-2019, %

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

According to the statistics, the unemployment rate in 2019 in the EU countries decreased by 6% on average, without the Republic of Moldova. In Moldova, the unemployment rate rose by 43.3 %. Belarus (12.5 %) and Ukraine (9.1 %) showed a sharp decline. In Kazakhstan, the decrease was only 2 %.

Studies have shown that in each of the EU countries there is a unique labour market, for example: influenced by various factors such as the sectoral structure of the economy, population density, migration processes, level of training, activity of enterprises, Public sector activities, etc. This explanation can also be applied to every region in our country.

To sum up, it is necessary to identify the main causes of unemployment among the younger generation on the State labour exchange: the inadequacy of the concept of the distribution of graduates of higher educational establishments to jobs; According to the qualifications obtained, and also distinguishing between the required specialties on the labour market and those of graduates. In order to address youth unemployment, international experts insist that remote work must be developed in a digital environment, and small and medium-sized enterprises are the main source for developing countries. Accordingly, to focus interest on the revitalization of the private sector. The supplement requires assistance to travel to a territory where there is a shortage of labour or vice versa.

In the same way, the State Programme for the Development of Productive Employment and Mass Entrepreneurship for 2017-2021 «Enbek» is being implemented. Moreover, together with these active measures of state support to the young generation of the country on the instructions of the First President of RK N.A. Nazarbayev, voiced at the event with the purpose of the statement «Year of Youth» On January 23, 2019, this year it is planned to launch the National Youth Support Project «Zhastar El Tiregi» with a coverage of 1 million. young people for three years. The programme takes into account the expansion of State support through job placement, the improvement of the quality of education and the development of entrepreneurship among young people and low-income large families.

Thus, the target indicators of the State Programme for the Development of Productive Employment and Mass Entrepreneurship for 2017-2021 «Enbek» are oriented in the following four directions.

1) Short-term vocational training for participants in the VE programme;

2) Business optimization and development;

3) By optimizing employment and labour mobility, improving the situation on the labour market;

4) Tasks aimed at realization of the national project «Zhastar – El Tiregi».

In line with the objectives set, the following tasks are being carried out in the first area of short-term vocational training for participants in the VE programme:

The creation of a pool of trainees within the framework of Tipo, based on the demand of the labour market;

Vocational training courses in trades required by the labour market;

The personnel of the project «Mangilik El Zhastary- industriaga!»;

Intensive work on retraining and further training courses, including jobs to be reduced.

For the purpose of optimization and business development, the following range of tasks is specified:

– with the assistance of the regional chambers of entrepreneurs and NTP «Orley» training in the basics of entrepreneurial activity in the field of realization of the project «Bastau Business»;

In order to stimulate the financial demand for credit resources, affordable microcredit facilities for entrepreneurs in small towns and rural areas of the country should be made available.

In line with the third trend - optimization of employment and labour mobility - the improvement of the situation on the labour market is aimed at:

Assistance in finding employment for persons from low-income families with many children, persons bringing up children with special needs, young people who are not working or studying and part of the population determined by the Government;

Assistance in activating the mobility of the country's labour force;

– activation of the activity of the government Internet resource «Labour Exchange».

The main tasks aimed at the realization of the national project «Zhastar - El Tiregi» contain the following set of measures:

– active activity, expansion and development of the youth project «Zhas Kasipker»;

– within the framework of the project «Zhas Maman» providing the labour market with the most demanded personnel on the principle of 100/200.

– In this way, the government regulation of the Labour Exchange implies the concept of state bodies, measures, projects, legislative and regulatory acts, a set of instruments of monetary, social, tax policy, employment policy, aimed at ensuring the full functioning of the labour market and ensuring equal opportunities for all citizens to exercise their right to work and to free choice of employment. The regulation of the labour market is in most cases determined by the strategically well-defined objectives of the employment programmes, which are determined by the leadership of the State on the basis of the specific organization and functioning of the labour market.

Due to recent events, the world labour market is undergoing global changes. The greatest impact on this process is the shift to remote work.

The lucky ones are the ones who were transferred to remote work under the previous conditions. Those whose activities are inextricably linked to computer work - designers, video editing, programmers, copywriters, SMM managers (social networking), university professors, operators and other people working intellectually and creatively can safely work from home. However, since the crisis has affected all of us, there may be a problem of lack of demand.

Of course, not all work can be done by remote access, but unfortunately some professions have become somewhat irrelevant, for example: tour operator, tour guide, secretary, advertising manager, stylist, fitness coach, tamada.

Tourism has been severely affected by the pandemic – travel is out of the question within closed borders. Consequently, air transport staff have also found themselves in a difficult position. Advertisers receive fewer orders every day. Not to mention entertainers. Due to the existing restrictions on the conduct of cultural-mass events, the leading celebrations, «beauty artists» – stylists, makeup artists, fitness coaches are left without work.

According to Jobeka experts – this is the Kazakhstan job search site, the most popular job vacancies in the labor market after the pandemic will be the following:

1 The crisis manager is the manager of the highest class, who identifies the weak and the strong in the business, develops a series of activities aimed at overcoming the crisis with minimal losses.

2 Programmer – develops computer programs using algorithms. The need to develop and maintain software for the sale of products/services, which is what the programmer does, increases as far as remote work is concerned.

3 The organiser of VR/AR-translations is a specialist who transforms any real event into virtual with creation of «presence effect». During the quarantine, video broadcasts at various venues have become a real rescue for artists – actors and musicians can delight their fans with performances without leaving their homes.

4 Copywriter – writes informative and selling texts to order for various sites for further publication on the Internet. A sure sign of trying in this profession is the ability to express your thoughts orally and in writing.

5 The virus tester is a volunteer who is injected with strains into the blood. The physicians monitor the course of the disease in the ward and test the patient's body with a vaccine.

6 Call center operator – deals with sales of goods / services, consulting clients by phone calls. Anyone can learn this profession if they wish. The skills required for «working on the phone» are available to secretaries, clerks, journalists.

7 An online trainer is a specialist who gives people knowledge in a particular field individually or in a group.

8 Courier – specialist in the delivery of correspondence, goods from point A to point B.

Nowadays, programmers are a very popular profession, on the labor market. Their share in remote employment is 42 % in Kazakhstan, followed by 18 % in the Customer Support Service (Figure 5).

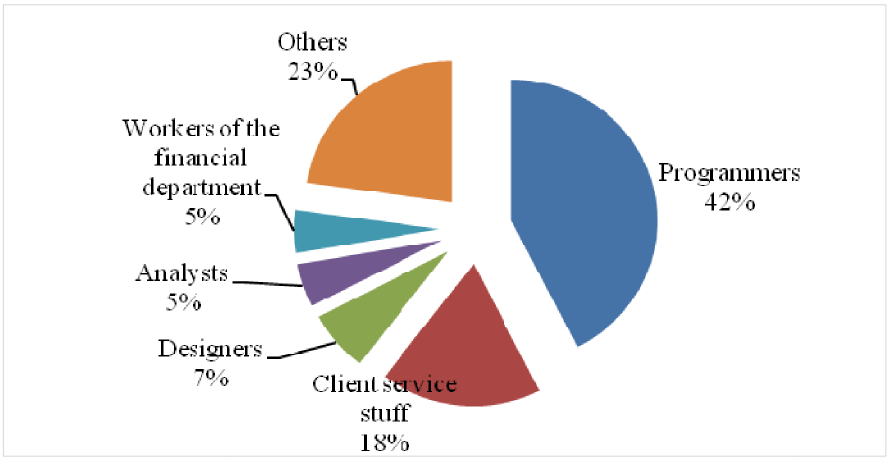

Figure 5. Occupations for people at distance working

Note: compiled by the authors according to the data of the source: Oficial'nyj sajt Komiteta po statistike Ministerstva nacional'noj ekonomiki RK [Official website of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan]

Entrepreneurs everywhere are moving into remote work. The reason for this is not so much the threat of the virus as the obvious lack of funds to pay for the rental of the offices.

At the end of the pandemic, many businessmen will seriously consider leaving things as they are - each member of a reduced team will do work from home. If such a possibility exists, theoretically under the prevailing conditions it is one of the best solutions for «survival» of the case.

It is possible that when the country recovers from the destructive power of Covid-19, people will face the challenge of finding work. A large number of applicants for one post, even one not previously requested, would result in lower salaries. Graduates without work experience will be the most vulnerable.

Employers were understandably willing to avoid additional costs in a crisis, which meant that informal arrangements would become even more common. The reluctance of entrepreneurs to pay their income to the Treasury could lead to a rise in the State's income tax rate on individuals.

People who have learned new professions will not want to return to the old ones or will not be able to do so. They may no longer exist as they do. The new knowledge gained is more extensive, and those who are about to become self-study will certainly benefit, especially if it comes to information technology.

The State therefore bears even greater responsibility for the future of the country and its population. It is necessary to consider a number of turns of events in order to have several options for solving problems, and to minimize negative consequences both for the citizens of the country and for the Republic as a whole.

Results

Significant changes are taking place in the labour market, thanks to the introduction of new technologies in knowledge management systems and career development. At the same time, economic restructuring has created qualitatively different patterns in personnel management practices, updating the principles of synergy of human capital elements. In the context of the new digital information economy, the role of «soft» management technologies as a factor for the potential infinite growth of the efficiency of management systems is being increased, expressed as a departure from the functional-Administrative model of labor coercion and transition to the so-called «economy of participation», purposeful for formation of direct interest of employees in labor results and participation in management processes.

Analysis has shown that, to date, State regulation of employment policies in our State has been organized through development programmes. The central executive bodies responsible for drawing up and implementing State and Government programmes monitor job creation and submit the relevant information to the authorized employment agency.

Labour exchange regulatory programmes include:

– programmes to maintain employment growth and increase the number of jobs;

– programmes aimed at training and retraining the labour force;

– employment promotion programmes;

– unemployment insurance programmes, such as the allocation of funds for unemployment benefits.

The priority task of these programmes is to implement active forms of employment aimed at developing initiative, enterprise, professional level and territorial and social mobility of the labour market labour force.

Conclusion

In summary, we can conclude that digitization is one of the priorities of the country's economy today. Digital technologies have become firmly embedded in the modern business space, affecting all spheres and stages of production, and the conditions of the pandemic have forced the restructuring of the existing business model in Kazakhstan. The automation and robotization of a number of technological operations can lead to structural changes in the labour market and changes in the type of employment of individual professionals. There is a need to review the entire business cycle: digitization of business processes, adoption of platform solutions, introduction of artificial intelligence, etc. These changes will trigger development even in the current crisis conditions. An example is the experience of companies that were able to continue their operations during the pandemic through the re-engineering of existing business processes and the outposting of staff. Of course, for many diggings, this transition is more difficult because of the high cost of IT solutions and the complexity of moving processes to the digital sphere, but a gradual transition will allow business to remain competitive.

Finally, the process of recruitment itself is changing in a digital economy. In the future, the human resources manager is expected to be the analyst in charge of collecting and processing large databases and making key decisions. And the collection of data on the Internet through open-source information is done by a robot. And it's not fantasy anymore, it's reality. The startup Stafory already today completely replaces the recruiter: artificial intelligence (AI) «scans» resume on recruiting sites, data from social networks, performs primary callings of candidates, conducts interviews with them with a human voice, Supplements the summary, prepares recruitment recommendations and transmits them to the personnel services of companies.

Today, the Z generation, the generation of people that emerged after 2000, is entering the labor market. The characteristic feature of this generation is high technological efficiency and adaptability to new technologies. Important for this generation is the model of target behavior at work, the existence of career values, the desire for recognition of work results, as well as high income. Therefore, companies seeking to attract and retain new types of workers need to develop tools to ensure that they benefit from capabilities.

Complementary data

The work was carried out within the framework of the state grant of the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan (IRN AP08956088 «Digital Entrepreneurship: How the Pandemic Transforms Forms of Employment in Kazakhstan»).

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Еңбек нарығын дамытудың қазіргі тенденцияларын зерттеу: цифрлық технологиялар мен COVID-19 пандемиясының әсерінен болған өзгерістер

Аңдатпа

Мақсаты: Цифрлық экономика және COVID-19 пандемиясы жағдайындағы еңбек нарығының қазіргі жағдайы мен басымдықтарын зерттеу.

Әдісі: Зерттеудің теориялық негізі — еңбек нарығын цифрландыру мәселелері бойынша отандық және шетелдік ғалым-экономистердің еңбектері, Қазақстан Республикасының заңнамалық және нормативтік актілері. Зерттеудің ақпараттық негізі Қазақстан Республикасы Экономика министрлігі Статистика комитетінің мәліметтері және авторлардың зерттеу нәтижелері. Зерттеудің әдіснамалық негізі экономикалық процестерді зерттеудің жүйелі тәсілі, абстрактілі-логикалық, экономикалық-статистикалық, монографиялық әдістер болып табылады.

Қорытынды: Мақалада Қазақстан Республикасының еңбек нарығының дамуын шет елдермен салыстыра отырып, талдау нәтижелері келтірілген. Цифрлық экономика және КОРОНА дағдарысы жағдайында жұмыспен қамту мәселелері қарастырылды. Цифрлық технологияларды енгізу жылдамдығы неғұрлым тез болса, цифрлық экономиканың қалыптасуын басқару міндеттері соғұрлым күрделі болатындығы атап өтілген. Технологиялар жаңа өндірістерді дамытудың қозғалтқышына айналып қана қоймай, сонымен бірге маңызды әлеуметтік рөлдерге ие болып, халықтың қартаюы, әлеуметтік теңсіздік, экологиялық мәселелер және климаттың өзгеруі сияқты әлеуметтік мәселелерді шешуге зор үлес қосуда. Дамыған ғылым мен техниканың көмегімен адамның қажеттіліктеріне, икемділігі мен шығармашылығына бағдарлаудың жаңа құндылықтарына негізделген «ақылды» қоғам қалыптасуда. Цифрландырудың әсерінен еңбек нарығы, денсаулық сақтау, білім беру және кеңістікті дамыту түбегейлі өзгеруде.

Тұжырымдама: Мақалада цифрландыру тұрғысынан Қазақстан экономикасы үшін жұмыспен қамтудың жаңа түрлерін іздеу жағдайларын қалыптастырудың негізгі аспектілері ашылған. Қазіргі жағдайда цифрлық ортаны дамытуға баса назар аударылады. «Цифрлық Қазақстан» Мемлекеттік бағдарламасы шеңберінде экономикалық субъектілерді мемлекеттік қолдаудың мазмұны қарастырылды. Пандемия жағдайында кең таралған шектеулерден әлемдік экономикада туындаған өзгерістер қазақстандық еңбек нарығында жұмыспен қамтудың жаңа жолдары мен формаларын іздеуге әкеледі деген қорытынды жасалды.

Кілт сөздер: сандық экономика, еңбек нарығы, жұмыспен қамту, цифрландыру, пандемия.

С.Н. Суйеубаева, Э.С. Мадиярова, Г.Б. Пестунова

Исследование современных тенденций в развитии рынка труда: изменения, вызванные цифровыми технологиями и пандемией COVID-19

Аннотация

Цель: Изучение современного состояния и приоритетов развития рынка труда в условиях цифровой экономики и пандемии COVID-19.

Методы: Теоретической основой исследования являются произведения отечественных и зарубежных ученых-экономистов по проблемам цифровизации рынка труда, законодательные и нормативно-правовые акты Республики Казахстан. Информационную основу исследования составили данные Комитета по статистике Министерства экономики Республики Казахстан и результаты исследований авторов. Методологической основой исследования являются системный подход, абстрактно-логический, экономико-статистический, монографический методы изучения экономических процессов.

Результаты: В статье приведены результаты анализа развития рынка труда Республики Казахстан в сравнении с зарубежными странами. Рассмотрены вопросы занятости в условиях цифровой экономики и CORONA-кризиса. Отмечено, что чем быстрее темп внедрения цифровых технологий, тем сложнее задачи управления становлением цифровой экономики. Технологии становятся далеко не только двигателем развития новых отраслей, но и обретают важные социальные роли, внося значимый вклад в решение проблем общества, таких как старение населения, социальное расслоение, экологические проблемы и изменение климата. С помощью передовой науки и технологий возникает «умное» общество, базирующееся на новых ценностях ориентации на потребности человека, гибкости, креативности. Под влиянием цифровизации кардинально меняются рынок труда, здравоохранение, образование, пространственное развитие.

Выводы: Статья раскрывает ключевые аспекты формирования условий для поиска новых форм занятости для казахстанской экономики с позиции цифровизации. Акцент делается на развитии цифровой среды в современных условиях. Рассмотрено содержание государственной поддержки экономических субъектов в рамках государственной программы «Цифровой Казахстан». Сделан вывод, что изменения, вызванные в мировой экономике повсеместными ограничениями в условиях пандемии, приведут к поиску новых путей и форм занятости на казахстанском рынке труда.

Ключевые слова: цифровая экономика, рынок труда, занятость населения, цифровизация, пандемия.

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DOI 10.31489/2021Ec1/83-91
JEL: J08
UDC 658.3 005.95/.96

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Distant motivation against short motivation

Abstract

Object: This article examines the issues of comparative analysis of short, that is, near and long perspectives from the point of view of their impact on employee motivation. Another goal of the article is to develop practical recommendations for the development of Far Distant (Long-term) Motivation in the wage system.

Methods: This study uses quantitative research methods and a trending data collection method. The data were collected through a survey using the same questionnaire in 1994 and in 2010, which made it possible to identify the dynamics of changes in employee motivation. The sample size was 250 respondents.

Findings: The results show that long-term perspectives at work play a huge role for workers. Second, Far Distant Motivation is unfortunately underestimated by employers, as a result of which the potential for increasing employee productivity is not fully exploited.

Conclusions: Research shows that Far Distant Motivation should become an essential element of the motivation system in a company focused on competitiveness. Its presence will increase the competitiveness of the company, the productivity of employees and achieve the integration of personnel into the strategic goals of the company. The widespread practice of Short-Term Motivation based on assessment and remuneration based on short-term results for certain categories of workers has significantly less motivational power than Far Distant Motivation based on assessment of merit and long-term performance results. Therefore, modern companies must build a combination of Short and Far Distant Motivation.

Keywords*:* Motives of employees, long-term and short-term prospects, Far Distant Motivation, Short Motivation, wage system, wage scale, corporate wage scale, principles of far distant motivation.

Introduction

The corporate practice of personnel motivation today is largely based on the appraisal of work results, including through personnel assessment using the balanced scorecard, key performance indicators, etc. This causes a short employee motivation.

However, any individuals is focused on the long term of his work. Long-term plans play an important role in the life of any person, which provide him with motivation no less than short stimuli.

In the article, the author, for the first time in the theory of motivation, explores the theoretical aspects and practical issues of implementation long-distance motivation, which he is called Far Distant Motivation (FDM). The author is the founder of this theory, which he has been studying since 1983. The author argues that a new paradigm of motivation based on long-term employee motivation should become a mandatory part of the corporate motivation system. Using the example of researching the motives of employees of different companies, the author showed that incentives extended over long (far) distances and long-term prospects increase overall employee motivation and lead to higher productivity. In its motivational sense, Far Distant Motivation (FDM) acts like a carrot and Short Motivation acts like a stick.

Literature Review

In recent years, the theory of motivation is experiencing a new round of stagnation. This is largely due to changes in the structure of corporate practice requests. Currently, this practice is mostly fascinated by theories of strategic management, production models and operational management (Drake et al., 2007; Franken, 1994). Flexible forms of labor organization and personnel outsourcing are widespread, which is associated with globalization and most technological changes.

In turn, the theory of motivation, unfortunately, can not boast of serious discoveries. For the past 50 years, it has largely relied on well-known substantial and procedural theories of work motivation (Pinder, 2015; Mackay, 2017).

However, the lack of these theories lies in the fact that they are largely based on the so-called "short" motivation. This means that the stimulation of high productivity is carried out for the specific work and results being carried out (Bernays & Vickers, 2018; Dweck, 1986). On the contrary, the popularity of encouraging a company's loyalty (loyalty), using long-term incentives in the form of profit in profits and selling shares to employees has decreased significantly. This approach, based on encouraging long-term returns from work and providing employees with long-term perspectives, is called Far Distant Motivation (FDM).

It cannot be said that the corporate practice of motivation today is fully based only on short motivation. To a certain extent, certain elements of long-term motivation are saved and used in practice (McClelland, 1985; Kanfer et al., 2012). Policies aimed at the participation of employees in the profits of companies, the preferential sale of shares (distribution of property); deferred remuneration of labor, premiums to seniority - these elements form the desire of employees and workers to integrate more closely into the company's strategic goals (Gardner & Shah, 2007; Weiner, 1974; Pritchard & Ashwood, 2008). The so-called life-long employment are still widespread in Japan.

However, it should be recognized that in practice these elements are increasingly inferior to new trends in the labor market in the form of non-permanent and flexible employment, short-term employment contracts.

Methods

Work remains the most important value at all times, only slightly changing its level of value at different ages. This was confirmed by a sociological survey, which was conducted by author at intervals of 16 years in Kazakhstan. Different categories of the population acted as questioned people - from university students in Almaty to people aged 65 years. The survey was carried out in Almaty. The number of respondents in both cases was 250 people. The number of unreturned and damaged questionnaires was 21 in 1994, and 18 in 2010. The results of these studies are summarized in the table 1.

Table 1. What is most important in life? (survey in 1994 and 2010)

Age, years	**23-27**	**28-35**	**36-45**	**46-55**	**56-65**	**Total, %**
Health						
1994						48%
2010						44%
Work						
1994						64%
2010						71%
Prosperity						
1994						48%
2010						69%
Order and peacein the country						
1994						25%
2010						21%
Family						
1994						74%
2010						61%
Respect forhuman rights andthe rule of law						
1994						5%
2010						48%
Close relatives						
1994						26%
2010						29%
Recreation &entertainment						
1994						13%
2010						58%
Note – designed by the authors						

The purpose of the study was to study the changes in the value of different areas of life of Kazakhstan. Since this is not the purpose of this study, we will emphasize the findings regarding labor motivation. As follows from the table:

– Work both in 2010 and 16 years ago remains the most important area of human life.

– The value of work in a person's life changes with age.

Target setting motivation: short and long motivation

Being born, most people, along with basic instincts and reflexes, receive as a gift another very important instinct - the "instinct of success". The human brain is a machine aimed at achieving the objectives.

But with the work the situation is much more complicated. She, as can be seen from the table above, dominates a person for almost his entire life. It largely defines the concept of meaning and happiness in life.

Often, focusing on work during the first half of life, somewhere in the middle of a life's journey, after taking a short break, a person begins to reassess and rethink everything. Often the results of such a rethinking are not comforting: mistakes were made in family life, and the profession chosen was not entirely appropriate (Fiske, 2018). Sometimes this leads to adjustments to the family and work program. Sometimes it all goes on the inertia and the person continues to go with the flow. This means that the fears of change and many other circumstances that have accumulated by this time in parallel with life activity, already begin to dominate and influence the future life. And in that case, the circumstances of life begin to dominate the man, and they determine his fate, but not he himself (Burnett, 2020). The period of such ignorance, the time of "mental blindness" falls on the period of the most active (but often not the most fruitful) part of life - its first half. Millions of people on the planet suddenly begin to realize that they did not achieve goals, or the goalswere erroneous, or that the goals were incorrect. Anyway they received not what they really would like. Possibly they set the wrong goal. Possibly, the goal was false or incorrect, erroneous. Unfortunately, life experience and wisdom grow and accumulate as life postresult, but they are not given in advance. As a result, the real and, unfortunately, life already lived often does not coincide with the plans, goals and ideas that were at the beginning of life (Henry, 2020).

Of course, there is a category of people who have received what they wanted, and who can say that life is successful and they are "lucky", "masters of their life."

There are other categories of people who did not set up large or important firs at all. They live life in simplicity and in harmony in their understanding.

How does this relate to the theory of motivation, to the construction of corporate motivation? In fact, this means that the corporate motivation system should strive to search for the universal inner motives of the majority of employees. These motives should be inherent for most types and groups of people, applicable for most ages.

Along with the well-known classifications of motives for work (development motives, statements, procedural, negative, affiliations, etc.), the division into actual and potential motives should be noted (G D. H. 1889-1959 Cole, 2015).

Motives that take the leading place in practice are constantly updated and indeed have a significant motivational influence on human activity, are actual. Most often, such motives are motivated by fear, for example, the motive for losing one's job, punishment, getting a living wage, etc.

Potential motives are motives not yet used. They can be both individual and characteristic of the majority. However, more often than not, they are not obvious and require identification. They may be less permanent. Satisfying such motives may be more costly for the employer.

Under certain circumstances, potential motives may be satisfied. However, most often due to their complexity in practice they are not given attention.

Of all the signs of motivation, must be mentioned the principles of hierarchy of motives and the principle of individuality of motives (Abernathy, 1996).

The motivational sphere is quite dynamic and therefore the value and influence of individual motifs change. This leads to the fact that the hierarchy of motives is constantly changing. They are relatively stable only for a certain period of time, but most often they change.

But the most important thing is that despite this they remain individual. Even dynamism remains dependent on individuality. For some, motivation may remain unchanged throughout life. Such people can work 30-40 years in one workplace. Under the conditions of the industrial revolution and mass production, it was not uncommon. And there are quite a few supporters of such stability now, despite globalization and the increasing dynamism of industry.

The individuality of motivation begins to increase when the number of motives to work for a person grows.

This is the most important thing in motivation. At the same time, each motive has its own driving force.

Sometimes, a single motive can prevail over all and a dissatisfied person leaves work with very attractive conditions. In most cases, however, the more motives are actualized, the stronger the motivation. If you can use additional motives, then the overall level of motivation increases (Omarkhan, Konopyanova, Ishkinina, and Zirkler 2019).

Consequently, the overall level of motivation depends on:

– the number of motives that encourage activity;

– from the driving force of each of these motives.

Based on this pattern, the manager, seeking to increase the motivation of his subordinates, must fulfill three conditions:

1. use (update) the largest possible number of motives;
2. to increase the driving force of each of these motives;
3. activate the most universal motivational factors.

In general, motivation can be defined as the motivation of people to be active, due to the appeal with the help of material or other incentives to his motivational needs and motivational sphere. The motivational sphere of the personality consists of such psychoemotional factors as needs, beliefs, worldview, ideals, inclinations, interests, desires, aspirations, aspirations, fears, moral aspirations, etc.

From this point of view, any manage is the result of the impact on the motivational sphere of a person.

In this case, Far Distant Motivation is the impact on the most delicate strings of the human soul, on the strongest and positive emotions. FDM is accompanied by internal motives of gratitude, sincere impulses and desires. It gives a person a sense of stability and increases his interest in the prosperity of the company. After all, the growth and prosperity of the corporation is associated with its stable future. As a result, it gives a real explosion of productivity and high employee satisfaction. In contrast, short motivation is based on short incentives. If a FDM is comparable to the effects of a carrot, the effects of a Short Motivation are comparable to those of a stick, as it is based on negative emotions and fear, on incentives of coercion.

To create an effective incentive system for employees in a company, it is necessary to find the most optimal variant of the relationship between FDM and Short Motivation.

The following basic principles of an effective FDM scheme can be distinguished:

*Direct dependence of earnings on the resul*ts. The amount of remuneration depends on the results of the corporation. The employee must make a profit if the business develops successfully (its economic value and profitability increase). If the company does not increase profits, the employee receives a basic wage. At the same time, the employee will suffer losses in earnings if the profitability of the business has become lower (both in terms of lower income and in terms of increased costs).

The dependence of the employee's salary on the length of service in a corporation, but not a simple relationship, but in dynamics and correlated with the results of the growth of its performance indicators.

Clarity and controllability. Effective motivation provides for a certain confidence of the parties and a common interest in a positive result. For an employee, it is important to understand the key parameters by which they will evaluate its effectiveness (Beano, Mauina, Zhansagimova, 2015). The parameters can be: the performance of indicative indicators, balanced indicators, etc. For each company and even more so for each employee, they are individual.

Realistic motivational system and its continuity. This means that when implementing the FDM program for employees, one must remember that once having introduced this system, a corporation will not be able to cancel it. That is why you need to be sure that this system of motivation is necessary at a specific stage of development and that the corporation has sufficient budget for its implementation.

Focus on employee development. The scheme should be aimed at the continuous development of the employee and the salary should depend on the improvement and professional development of employees.

Results and Discussion

On the basis of theoretical principles and FDM for the national air-space corporation "Kazakhstan Garysh Sapary" (previously JSC "KAZKOSMOS") a corporate wage system was developed.

The tariff part of this system is based on the following principles.

1. Sharing of categories of workers in relation to the main results of activities. All positions / professions of employees of the corporation are distributed to the main and non-core production groups, as well as serving the production. The main categories include specialists whose activities are directly related to space activities. In other words, these are the specialists who are engaged in the preparation, design, creation and operation of space technology and equipment. Non-core groups of workers include those whose activities are not directly related to the implementation of space activities. The category of auxiliary workers mayalso behighlighted.

Table 2 shows the categories of employees of the corporation.

Table 2. Categorization of employees of the corporation “Kazakhstan garish sapary” staff category

Senior management, senior managers (members of the Board)	
The main production	Middle management(directorsof departments andtheir deputies)
	Lower Level Manager(Head ofdepartmentsand their deputies)
	Leading experts(designers) Head. sectors
Minorproduction	Middle managers(directorsof departments andtheir deputies,Advisor to the Chairman of the Board, the auditor)
	Lower Level Manager(Head of Department and deputydirector of regional branch
	Leading experts(leadingspecialist, chief specialist, heads of sectors)
	Professionals (engineers, specialist, seniorspecialist)
Service staff	Employees(headof the guard, technician)
	Unskilled workersandMOS(drivers, cleaners, janitors, plumbers, security guards, a driver)
Note – designed by the authors	

2. Wage scale (tariff grid). A 16-bit unified tariff wage scale (table 3) was proposed, covering all categories of corporate employees from rank-and-file to a member of the Management Board. For the Chairman of the Management Board, payment is made for an individual contract, however, if the Board of Directors decides on payment under a single tariff scale, he can be graded according to the 16th category.

3. Methods of distribution of work by grade. For the corporation, a Handbook for determining the categories was developed for evaluating the content of work with criteria and descriptions of the complexity of work for each category. In the general case, the distribution of work by grade is carried out by an expert assessment committee based on intuitive and experienced judgments. However, given the lack of experience at the first stage of such work, a specially developed reference guide for job complexity identification was proposed, which allows each job to assign to a specific category on the tariff grade scale.

4. For a more objective assessment of managers' positions, other factors may be taken into account when developing a motivation system. For example, the number of subordinate personnel, the number of managers in subordination, the level of subordination, the number of incoming divisions, the significance of the tasks facing the division, the variety of functions performed and otherscan be taken into account.

Table 3. Unifiedpay scaleof JSC "KAZKOSMOS"

Category (class)		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
The rangeof tariffcoefficients		1,0 1,3 1,5	1,4 1,6 1,9 2,2	2,0 2,5 3,0	2,8 3,4 4,0 4,3	4,0 4,6 5,0	4,8 5,2 5,8 6,2	6,0 6,4 6,8	6,6 7,0 7,4 7,8	7,6 8,0 8,4	8,2 8,6 9,0 9,6	9,4 10,0 10,8	10,6 11,2 12,0 12,8	12,4 13,2 14,2	14,0 15,0 16,2 17,4	17,2 18,0 19,5	19,0 20,8 22,0 24,0
Categoryemployees	Serving theproduction	Unskilled workers and junior staff															
			officials														
	Providingproduction			specialists													
						Leading specialists											
									The leadersof the lower-level								
												Supervisors					
	The main production						Leading specialists										
											The leadersof the lower-level						
															Supervisors		
	Top management															Top management	
Note – designed by the authors																	

Thus, for example, by the indicator "Significance of the task facing the subdivision" and "Diversity of the functions performed", the periodicity of each task assigned to its subdivision was evaluated and its importance for the subdivision itself was assessed. Naturally, the tasks solved by central accounting department have a higher score than in other departments, due to the "cost" of errors and responsibility of work.

According to the indicator "Variety of Functions", the following were evaluated: analytical function, informational function, control function, methodological guidance, planning function, interaction, production function, search, coordination, etc.

5. In accordance with the reference book the expert assessment group makes an analysis of job descriptions of their corporate value, carried out an assessment of jobs (positions) and grading.

6. The establishment of specific tariff coefficients for employees at specific jobs.

When introducing a corporate wage system specific grades is established:

– By Chairman of the Board for heads of departments and members of the Board;

– By Directors of departments for employees of the department taking into account recommendations of the head of the employee. It is recommended to set tariff coefficients at the minimum forks to create incentives for growth.

Subsequently, based on the results of the annual certification of employees, the adjustment of tariff rates is made downwards or downwards. Quarterly and annual estimates of the employee's work are also used for bonuses.

4. For a more objective assessment of heads when designing incentives can be taken, and other factors: the number of subordinate staff, the number of heads in submission, the level of subordination, the number of incoming units, the task facing the unit (including the frequency and importance of performance), performed by a variety of functions, the adjustment of the number. According to these indicators, the Director of the Finance Department are priced higher than similar corporate development department.

5. In accordance with the guidebook, the expert assessment group analyzes job descriptions, evaluates jobs (positions) and identify specific tariff grade.

6. In accordance with the directory, the expert assessment group analyzes job descriptions, evaluates jobs (positions) and assigns ratings.

6. The establishment of specific tariff ratios for workers at specific workplaces.

When introducing a corporate wage system, specific estimates are established:

– by chairman of the board for heads of departments and board members;

– by department directors for the department employees taking into account the recommendations of the head of the employee. It is recommended that tariff coefficients be set on minimum plugs to create growth incentives.

Subsequently, according to the results of the annual certification of workers, the adjustment of tariff rates is made downwards or downwards. Quarterly and annual employee performance evaluations are also used for bonuses.

Conclusion

Long-range motivation is an important reserve that is almost never used in modern motivation systems. Among the large number of motivational factors that drive a person, distant goals and motives play a crucial role. The corporate system of Far Distant Motivation is built through linking wages to long-term stable results and the continuous development of the employee in the interests of the company.

Far Distant Motivation most fully meets andhuman needs for a fair assessment of his contribution to the development of the company.

On the basis of a comparative analysis of Short and Far Distant Motivation, three factors can be distinguished that simultaneously both motivate and with the help of which far and short motivation is carried out - this is education, experience and qualifications of the performer. FDM is specifically related to the prospects for professional, qualification, and educational growth throughout the entire working life of an enterprise. The individual himself is interested in this growth, since it meets his needs for self-realization.

A corporate long-term motivation strategy based on the active use of long-term incentives is today the most effective and rational. Short motivation provides support, guiding functionandskills of the performer. Distant motivation is specifically related to the prospects of professional, qualification, educational growth throughout working life at the company. This increase in interest and the individual himself, as it suits his needs for self-actualization.

The strategy of motivation to work, based on the active use of long-term incentives for action is now the most efficient and effective manner. Short motivation provides supportive, guiding function.

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Т.И. Мұхамбетов

Ұзақ мотивация қарсы қысқа мотивацияға

Аңдатпа

Мақсаты: Мақалада қызметкерлердің мотивациясына әсері тұрғысынан қысқа, яғни жақын және алыс перспективаларды салыстырмалы талдау мәселелері қарастырылды. Мақаланың тағы бір мақсаты — жалақы жүйесінде қашықтықтан (ұзақ мерзімді) мотивацияны дамыту бойынша практикалық ұсыныстар әзірлеу.

Әдістері: Зерттеуде сандық зерттеу әдістері және трендтік мәліметтер жинау әдісі қолданылды. Деректер 1994 жылғы және 2010 жылғы сауалнаманы қолдана отырып, өзіндік жұмыс жасау арқылы жинақталды, бұл қызметкерлердің мотивациясының өзгеру динамикасын анықтауға мүмкіндік берді. Іріктеме мөлшері 250 респондентті құрады.

Нәтижелері: Нәтижелер көрсеткендей, ұзақ мерзімді перспективалар жұмысшылар үшін үлкен рөл атқарады. Екіншіден, жұмыс берушілер алыс қашықтықтағы мотивацияны, өкінішке орай, бағаламайды, нәтижесінде жұмысшылардың өнімділігін арттырудың әлеуеті толық пайдаланылмайды.

Қорытынды: Зерттеулер көрсеткендей, қашықтықтағы мотивация бәсекеге қабілеттілікке бағытталған компаниядағы мотивация жүйесінің маңызды элементі болуы керек. Оның болуы компанияның бәсекеге қабілеттілігін, жұмысшылардың еңбек өнімділігін арттырады және персоналдың компанияның стратегиялық мақсаттарына енуіне қол жеткізеді. Жұмысшылардың жекелеген санаттары үшін қысқа мерзімді нәтижелерге негізделген бағалауға және сыйақыға негізделген қысқа мерзімді мотивацияның кең тараған практикасы еңбек сіңірген еңбегін бағалауға және ұзақ мерзімді нәтижелерге негізделген алыс қашықтықтағы мотивацияға қарағанда айтарлықтай аз мотивациялық күшке ие. Сондықтан қазіргі заманғы компаниялар қысқа және алыс қашықтықтағы мотивацияны құруы керек.

***Кілт сөздер**:* қызметкерлердің мотивтері, ұзақ және қысқа мерзімді перспективалар, қашықтықтағы мотивация, қысқа мотивация, жалақы жүйесі, жалақы шкаласы, корпоративті жалақы шкаласы, алыстағы мотивация принциптері.

Т.И. Мухамбетов

Дальняя мотивация против короткой

Аннотация

Цель: В статье рассмотрены вопросы сравнительного анализа коротких, то есть ближних и дальних, перспектив с точки зрения их влияния на мотивацию работника. Другой целью статьи является выработка практических рекомендаций по развитию дальней мотивации в системе заработной платы.

Методы: В исследовании использованы количественные методы исследования и трендовый метод сбора информации. Данные были собраны с помощью самостоятельного опроса с использованием одной и той же анкеты в 1994 г. и в 2010 г., что позволило выявить динамику изменения мотивации работников. Объем выборки составил 250 респондентов.

Результаты: Результаты показывают, что дальние перспективы в работе играют для работников огромную роль. Во-вторых, дальняя мотивация работников, к сожалению, недооценивается работодателями, в результате чего потенциал повышения отдачи работников не используется в полной мере.

Выводы: Исследование показывает, что дальняя мотивация должна стать важнейшим элементом системы мотивации в компании, ориентированной на конкурентоспособность. Ее наличие позволит повысить конкурентоспособность компании, производительность труда работников и достичь интеграции персонала в стратегические цели компании. Широко распространенная практика короткой мотивации на основе оценки и оплаты труда по полученным краткосрочным результатам для отдельных категорий работников обладает значительно меньшей мотивационной мощностью, чем дальняя мотивация на основе оценки заслуг и долгосрочных результатов деятельности. Поэтому современные компании должны выстраивать комбинацию короткой и дальней мотивации сотрудников.

Ключевые слова*:* мотивы работников, дальние и короткие перспективы, дальняя мотивация, короткая мотивация, система оплаты труда, тарифная сетка, корпоративная тарифная сетка, принципы дальней мотивации.

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DOI 10.31489/2021Ec1/92-102
JEL: E44
UDC 336.71

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Financial Technologies in the Banking Sector: Prospects and Security

Abstract

Object: Annually financial technologies have an increasing impact on the banking sector. The article provides definitions of the term "financial technologies" by international organizations, foreign, Russian and Kazakh experts. In the context of the fourth industrial revolution, the relevance of the topic is justified by a sharp increase in the development of financial technologies and spread of digitalization in the banking sector. The purpose of the research is to survey the impact of digital technologies on the financial sector.

Methods: The main categories of financial technologies in the world and in Kazakhstan, in particular, are considered. The strengths and weaknesses, opportunities and threats of financial technologies in the banking sector are analyzed.

Findings: Digital transformation paves the way for a wide range of mobile data deployments that require ongoing security. In addition, the active development of information technology should stimulate the financial sector to be flexible and apply innovative approaches in all areas. The material also provides the prerequisites and reasons for digitalization in the area of banking services.

Conclusions: The transition of traditional types of banking services to a new level of technological development shows a direct relationship between the development of financial technologies and data security. In this regard, it seems relevant to effectively allocate priorities, taking into account the characteristics and specifics of each subject of banking activities. In an increasingly competitive environment, the most rational and digitally oriented strategy of the bank is becoming important.

Keywords: financial technologies, banking sector, security, digitalization, internet banking, cybersecurity, transactions, SWOT analysis.

Introduction

The development of information technology has a multiplier effect on the development of society and the state. The client, business and the state have in turn, a direct impact on increasing level of digitalization in society. It should be noted that the priority task of the State Program of the Republic of Kazakhstan "Digital Kazakhstan" is "the development of financial technologies and non-cash payments". In this context, the concept of financial technology in business is largely associated with the wide possibilities of information technologies and Big Data.

According to experts, technological innovations and modern challenges require the banking sector to move away from the traditional practice of providing services to digital. Digital financial services include a wide range of high-tech products, software, new forms of interaction with customers. For this reason, financial technology research in banking is highly relevant.

This article provides the current state analysis, dynamics and growth of services provision in Kazakhstan banks using the “transfer and payment” method. According to the National Bank of the Republic of Kazakhstan, the volume of payments and their number is growing rapidly, which gives rise to risks and opportunities. The SWOT analysis provides a realistic assessment of the strengths and weaknesses, opportunities and threats of the banking sector in Kazakhstan.

The article notes that the focus of banks on the development of financial technologies will further determine their competitiveness. At the same time, security is a basic requirement for customers and partners.

In addition, based on a comprehensive analysis the financial technology, the article provides a detailed overview of the concept of "financial technology".

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Literature Review

The development of digitalization and technology has had a huge impact on the emergence of new processes and products in the field of financial services. In 2017, participants of the World Economic Forum described financial technologies as a "digital weapon" that strikes at traditional financial institutions and breaks down barriers (World Economic Forum,2017).

As defined by the Financial Stability Board (FSB), fintech – based on financial innovations that can lead to new business models, applications, processes or products that have a significant impact on financial markets and organizations and financial services (IMF, 2017).

The analysis of the definition of financial technologies is based on the definitions of Kazakh and foreign authors (see Table 1).

Table 1. The concept of financial technologies by Kazakh and foreign authors

Year	Source	Author	Definition
2014	Deutsche Bank Research	Dapp T.	Modern technologies for the provision of financial services in the field of e-commerce, mobile payments or financing of startups at an early stage (crowdfunding, crowdinvesting).
2015	Research Paper No. 2015/047	Arner D.W. Barberis J.N. Buckley R.P.	New marriage of financial services industry and information technology.
2016	Financial Innovation,	Zavolokina L. Dolata M. Schwabe G.	The result of three main factors: organizations, people and geographic location (markets).
2016	Problemy ucheta i finansov	Osipova T.Yu., Klimenko E.N.	Business processes using new technologies in the field of mobile payments, money transfer, lending, etc.
2017	Finance: Theory and Practice	Maslennikov V.V., Fedotova M.A., Sorokin A.N.	A complex system that brings together the sectors of new technologies, financial services, start-ups and related infrastructure.
2017	European Economy – Banks, Regulation, and the Real Sector	Navaretti G B Calzolari G Mansilla-Fernández J Pozzolo A F	Through the development of digital technologies, in the financial services industry new processes and products are becoming available.
2018	Jekonomika. Nalogi. Pravo	Bakulina A.A., Popova V.V	Market segment in which companies operate at the intersection of traditional financial services and functioning of innovative companies.
2019	Bulletin USPTU. Science, education, economy.	Kurmanova D.A.	Companies use the new technology and innovation that aims to compete with traditional financial methods in the delivery of financial services.
2020	Web of Conferences	Doszhan R. Nurmaganbetova A. Pukala R. Yessenova G. Omar S. Sabidullina A.	Providing financial and banking services using modern technological innovations based on computer programs and algorithms.
2020	Centr delovoj informacii kapital.kz	Dzoekaeva A.	Payment aggregators, p2p lending platforms, instant digital transfer systems, crowdsourcing projects.
Note – compiled by the author			

The literature review revealed common features in the definition "financial technology". In particular, the authors agree that the main components of the term "financial technology" are innovation, digitalization and financial services. It should be noted that the term focuses on technological innovation and technological development. Most fintech companies are rooted in IT companies that create new solutions to the problems and challenges in the financial industry (Gomber, Siering, 2017).

Financial technology is the main driver of traditional financial services evolution. According to the report of the investment company H2 Ventures and KPMG Fintech, the list of the top financial technology innovators from around the world in 2019 was as follows:

• 27 payment and transaction companies,
• 19 companies engaged in private equity and brokerage services,
• 17 insurance companies,
• 15 credit companies,
• 9 Neobanks,
• 13 companies operating in various sectors of financial technology.

According to the Astana International Financial Center, the following companies engaged in the development of financial technologies:

• banks (Kaspi bank, Forte bank, Halyk bank, etc.);
• regulatory authorities (AFSA, National Bank of the Republic of Kazakhstan, Agency of the Republic of Kazakhstan on regulation and supervision of the financial market and financial organizations);
• enterprises (Kazakhtelecom, Beeline, Transtelecom, etc.);
• international payment systems (Kazpost, KASE, VISA, mastercard, etc.);
• venture funds (Qaztech ventures, Samruk Kazyna, Baiterek venture fund);
• accelerators (Astana hub, AIFC FINTECH hub, KAZ FINTECH and others);
• educational platforms (Nazarbayev University, Kazakh British Technical university, AIFC professionals and others);
• payment solutions (Senim, Paysend, Smart pay and others);
• credit platforms (Altenge, CreditOn, Otbasy 365);
• blockchain solutions (BlockchainKZ, FinTech Group and others).

The perception of fintech in the banking sector is controversial. Financial technologies are, however, threatened by great opportunities and high risks. Thus, the development of financial technologies and its impact on the banking future are extremely relevant. In her article "The influence of financial technologies on the development of the banking sector" Alpatova E.S., identifies the following six prerequisites:

First, the global financial crisis has had a strong impact on the banking sector, which has resulted in customer distrust and increased regulation of banking activities. High costs and strict controls are significantly narrowed the range of services. Startups have more opportunities in the financial sector.

Secondly, with the development of information technology, consumer behavior has changed. As a result, the provision of banking services has become less efficient. Technological innovations and product improvements were required. The development of social networks has also stimulated the new types of services.

Thirdly, the expanded capabilities of mobile communications with Internet access, mobile applications, social networks are set the task for commercial banks to pay attention to the provision of certain types of services in online format, through mobile applications.

Fourthly, the author of the article draws attention to the involvement of the modern generation in digital technologies, as well as their heightened to “easy use of services, quality and speed of obtaining information,” which is engine the development of financial services.

Fifth, the correct response of the banking legislation to innovations is generating an increase in digital technologies in traditional financial institutions.

Sixth, offering of accessible and affordable financial products and services increases the demand among the bank's clients (Alpatova, 2019).

Methods

To identify the factors that influence financial technologies in the banking sector, a SWOT analysis was defined as a research method, it also allows account to be taken the internal and external factors of organizations (Timofeeva, Mavrodieva, 2010). The analysis allows to identify the greatest threats to the banking sector, taking into consideration the development of digital technologies and the priority areas of the industry.

International and Kazakhstani reports on the classification of categories of financial technologies also became the methodological basis of the study. The statistical research is the use of Internet banking on the territory of the Republic of Kazakhstan. Theoretical and empirical data measure the potential of financial technologies in the banking sector.

Results

Conducting a SWOT analysis will help understand the development of financial technologies in the banking sector in modern conditions and its further trends. (see Table 2) (Pyzhlakov, 2008).

Table 2. Strengths of fintech development in the banking sector.

Title	Description
Provision of services through multiple channels	ATMs, terminals, Internet banking, mobile banking, to some extent reduce the burden on employees. Banks are placing their surplus workforce in new areas such as product marketing, field surveys, loan repayments. This improves the productivity of banks
A competitive advantage in the market	Promotes broadened coverage of business and clients
Promotes support common standards in operating procedure, products and services	Increase the level of credibility of employees and customers, the overall efficiency of the bank
Offering financial services through web platforms, without any geographic restrictions, financial technology allows banks to provide faster and more efficient transactions	Clients do not have face to face meeting with bank employees, thus, banks can reach a wider customer segment.
Banks can consolidate the complexity of their business	With the development of advanced technologies, banks can consolidate the complexity of their businesses, increase efficiency, accelerate operations, cost savings and economies of scale.
Note – compiled by the author	

The strengths of the development of financial technologies in the banking sector determine the most demanded types of services and directions for further development. In this context, a strong and paramount task is the introduction of advanced technologies in banks, remote and accessible banking services 24/7, will be their competitive advantage (Table 3).

Table 3. Weaknesses of fintech development in the banking sector

Title	Description
Increased demand for qualified personnel to perform complex banking operations	Due to technology upgrades, banks constantly need renew their personnel through staff rotation
Internet banking is vulnerable to cyber attacks	This creates the need to implement highly reliable security controls such as biometrics, public key infrastructure and digital signature controls
The accessibility of the Internet, the increased number of owners of a personal computer. The target customer segment is very specific	Online banking users are people with a high level of education and have a good understanding of IT technologies. For this reason, clients who do not have the skills requesting a bank
One of the main concerns is personal data security and integrity	There is a need to invest in software security. Account information theft and virus attacks occur with high frequency
Note – compiled by the author	

The most expensive for banks can be the threat of cyber attacks and the leakage of information about the customers personal data. Trust is the basis of the relationship between the bank and the client. Online banking should be clear and convenient to reach a larger number of users. At the same time, simplicity and convenience should be combined with a multilevel security system (Table 4).

Table 4. Opportunities for the development of fintech in the banking sector

Title	Description
Digitally maintain customer database	If you have databases, for certain categories of users there is no need to design others
Standardization of banking products and services	It has a positive value in increasing the efficiency and availability of similar services for customers and staff. Promotes equal opportunities for all
In addition to a cost-effective marketing channel, online banking provides 24/7 customer service	Customers can get the latest information on banking products and services. The ability to integrate links to various related services (online trading, stock markets, income tax payments). This will provide a single point for customers and eliminate the effort to switch to other Internet resources.
Internet banking, allows enter new areas (online shopping, marketing and selling products or services)	Internet banking opens up new opportunities for banks to conclude agreements with various agencies (utilities, education, insurance and others). This creates favorable conditions for business development at minimal cost.
Cooperation between banks and other platforms (online stores, providers)	Opportunities for opening or buying assets (bonds, options, mutual funds and mortgages), a differentiation of bank services and obtaining competitive advantages
Cooperation between banks and other platforms (online stores, providers)	Collaboration between banks and other stakeholders lays the foundation for the implementation of new business strategies that bring benefits to both customers and banks
Note – compiled by the author	

Interbank cooperation contributes to the creation of a unified database, digitization and automation of customer data. With a wide range of financial products, banks are differentiate services and create new opportunities.

Table 5. Threats to the development of fintech in the banking sector

Title	Description
High tech products have a very short 'life span'	Before introducing any new banking products and services is required a rigorous planning
Due to dependence on third parties, outsourcing of banking processes or activities contains certain operational risks	The development of financial technologies requires substantial investments. This reduces bank's mobility and prevents from introducing various programs. In this context, it is necessary to define outsourcing more precisely. Outsourcing reveals the inside secrets of the banks. When switching to outsourcing, it is necessary to take into account the compatibility and standards of banking products and services. In addition to current trends in the banking market, the decision can be made by analyzing the existing infrastructure, the level of personnel qualifications.
The safety of electronic banking has a location risk: natural phenomena (floods, fires, earthquakes) and criminal activities can harm the bank's operations	Control measurements are needed to mitigate risks, which includes the smooth implementation of security measures and backup systems to avoid loss of financial data and operational disruptions
The growing dependence of financial institutions on information technology has significantly increased the role of information security	Information security protects, maintains the confidentiality and integrity of customer information. It is necessary to maintain the interest of customers, their level of trust, trust in the products and online services of the bank. Risks can be mitigated by properly deploying security policies, regularly updating antivirus software, implementing biometric measures, public key infrastructure and digital signatures.
Electronic banking is also subject to legal and reputational risks	Foreign banks may have access to the domestic market and turn it into an aggressive competitive environment by offering more attractive products and better services, which poses a greater threat to banks
Lack effective legal regulations and supervision on the Internet	The development of information technologies requires an adequate legal framework that meets modern requirements. In case of financial losses of customers or other situations, there are no appropriate compensation measures.
Note – compiled by the author	

Through the SWOT analysis, the following parameters were identified as the most important to qualitatively increase the level of digitalization of services in banks. The development of digital technologies must occur in all areas of banking services simultaneously. This will lead to tremendous changes in the financial sector. High competition in the domestic and foreign markets should stimulate banks to use a customer-oriented approach. At the same time, the security system of banks should be ahead and anticipate the risks associated with the development of digitalization.

The development of financial technologies in the banking sector of Kazakhstan is increasing every year. Modern technologies are being introduced: blockchain, artificial intelligence, Bigdata, biometrics technologies for personal identification (Bizhikeeva, 2020). Compare the global dynamics of the use of financial technologies, most of the transactions are in the banking sector.

According to the EY's Global Fintech Adoption Index 2019, money transfers and payments are at the top of the ranking, use of financial technology in this category more than quadrupling over four years, from 18% in 2015 to 75% in 2019. I would like to note that banking services for money transfers and online payments are growing rapidly all over the world.

The use of money transactions and payments via Internet banking for the period 2016-2020 in the territory of the Republic of Kazakhstan also increased. Every year, there is an increase in transactions in three to four times. And probably, due to the current situation in the world, the coronavirus pandemic, the use of Internet banking for money transactions and payments will grow steadily. According to the press service of Jýsan Bank, during the state of emergency and the quarantine, there was a change in consumer behavior. The need for a contactless service increased the number of registered users of the bank's mobile application in three times. Jýsan Bank realized the opportunity of online lending, delivery of payment cards, remote account opening, biometric identification and registration (Bizhikeeva, 2020).

According to the analytical center the Association of Financiers of Kazakhstan in 2019, online payments increased by 21% compared to 2018. The use of POS terminals as a payment option dropped sharply from 43% to 26%; ATM payments in the total volume of card transactions decreased from 4% to 1% (Table 6).

Table 6. Use of payment cards issued by Kazakhstani and foreign issuers on the territory of the Republic of Kazakhstan, dynamics of transactions via Internet banking, first quarter of the year.

Years	2016	2017	2018	2019	2020
Thousand transactions	12322,2	22060,3	54911,4	129532,7	459500,1
Million tenge	127021,9	245999,4	665444	1518566,3	5588753,5
Note - compiled by the author on the basis of the corresponding source of NB.					

Compared to 2018, the number of transactions via Internet mobile banking in 2019 increased by 21% in comparison with other transactions. It was decided to analyze the use of Internet banking for the 1st quarter in different years, starting from 2016. The popularity of online banking transactions has grown steadily every year. In 2018, the number of payments increased by 2.7 times compared to the same period in 2017. High growth rates of 2.2 times in 2019 indicate a steady increase in the popularity of online banking. Since March 16, 2020, due to the regime for a state of emergency imposed by the coronavirus pandemic, the volume of payments in 2020 has increased by about 3.6 times, the number of transactions has also increased by 3.5 times compared to last year.

The use of payment cards issued by Kazakhstani and foreign issuers on the territory of the Republic of Kazakhstan, the dynamics of transactions via Internet banking, the period January-February-March (Figure 1).

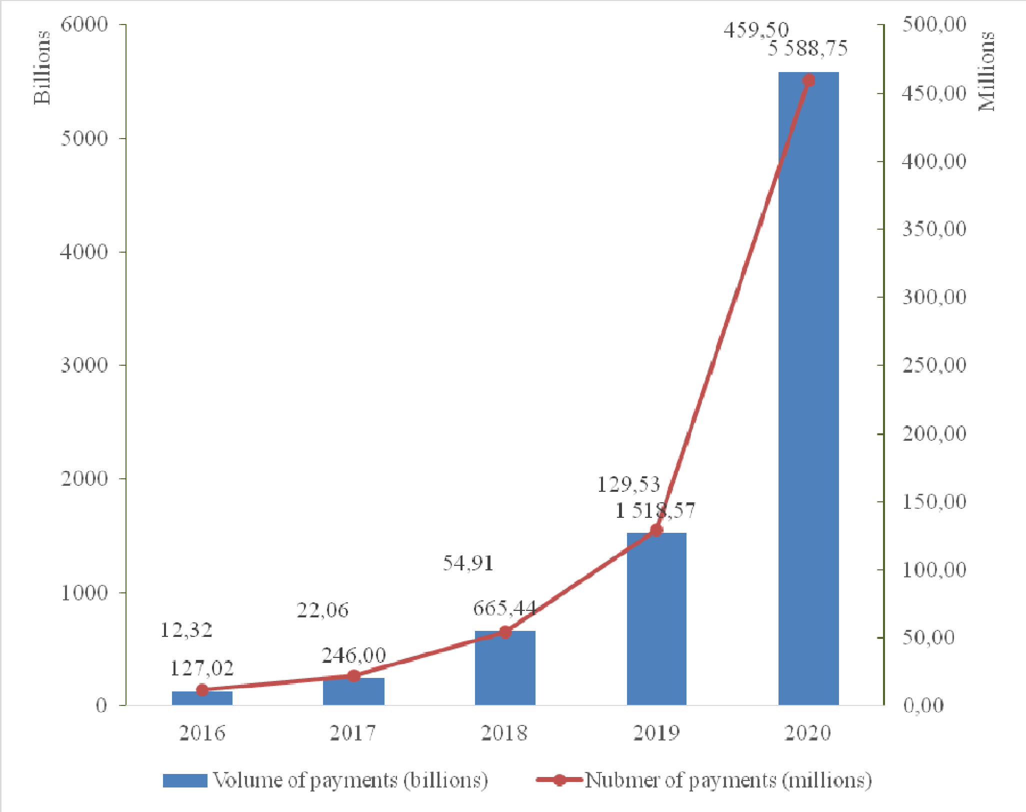

Figure 1. The use of payment cards issued by Kazakhstani and foreign issuers in the territory of the Republic of Kazakhstan, the dynamics of transactions via Internet banking period January-February-March

Note - compiled by the author on the basis of the corresponding source of NB.

Consequently, payment for goods and services, all banking operations via the Internet, will require even greater implementation of financial technologies in the banking sector. Trends in the use of Internet banking will only increase, the pandemic has changed the views of users on online shopping. With the rise of digital technologies, customers choose the time. The Internet banking provides such an opportunity.

Discussions

The analysis showed that the progress in the banking sector is directly related to the development of financial technologies and security. It is very important for banks to increase funding for new technologies, thereby becoming innovative and flexible market participants. Key new technologies must be deployed on all fronts: apply timely analytical methods and working approaches, redefine service distribution channels, strengthen further standardization of back office functions and services. Banks should pay special attention to providing security in the same areas. With the advancement of technology, cyberattacks have been conducted more frequently. The integrity of personal data, the reliability of the bank in all respects will give a competitive advantage.

At present Kazakh banks are being tested by advanced technologies. Since the beginning of 2020, the banking sector has experienced amazing growth of transactions via Internet banking. Therefore, the issue of financial technology in the banking sector is very relevant. The bank's primary task is to redistribute priorities. A correct analysis of the financial and economic activities of the bank will allow to find strengths and weaknesses, to determine the level of digitalization of banking services. The provision of banking services through information technology and the confidence in the security of transactions will be the main advantage.

The speed and efficiency used security technologies usually lag behind of new Internet technologies. This is reflected in the growth of cybercrime, an increase in cases misuse of data. In particular, rapidly growing mobile application market are discovering an increasing number of security vulnerabilities, misuse of data, espionage, malware and spyware hacking. The importance of information security is becoming more prominent in both private and business areas.

Conclusions

Thus, the SWOT analysis of the development of financial technologies in the banking sector showed that there are a number of problems that can affect the further development of digitalization in the banks of the Republic of Kazakhstan. It is therefore essential that traditional banks provide modern additional services to customers through digital channels. Such services must be efficient, reduce search costs and provide easy access to information. To solve the problems identified during the SWOT analysis, the following recommendations are offered:

Banks' primary task is to protect customers from cyber threats and ensure the highest security measures for personal data. The use of Internet banking from any device will lead to the accumulation of a huge data set, which is known as Big Data. The financial sector needs to rethink the implementation of such security control mechanisms as biometric authentication, public key infrastructure, digital signature control, use of one-time password. Also pay special attention to blockchain technologies that handle big data, and has a stable and convenient form of encryption (Khan, Yaacob, 2019).

Secondly, in a new reality, banks need to move to a digital transformation strategy. This involves banks to go beyond conventional websites, chatbots, for remote interaction provide customers with an interactive hub through digital channels. Banks need to develop a virtual banking system that will organically provide services to users, while simultaneously expanding their presence on the Internet.

Thirdly, financial institutions need to update technology, also redirect their thinking. Customers should be a center of all digital strategies. Banks has spent large sums of money on digital interactions with customers, which reduced the number of visits to branches, opened the possibility of interaction with the bank at the touch of a button using mobile phones or laptops. This progress has generated positive customer feedback, but more work needs to be done. Customer data is the new banking opportunity and the main success of digital transformation.

Fourthly, qualified and efficient staff will analyze the collected customer data, thus provide them an objective advice. An individual approach to clients will be visible, which will improve the brand and reputation of the financial institution.

Fifth, to succeed banks must take customer focus marketing approach to attract and retain customers. Especially in the early days of digital banking, it is important that bank employees talk and promote the benefits of online banking in order to gain customer’s trust and loyalty (Drenik, 2020).

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А.Г. Мукушева, М.Т. Жоламанова, Н.К. Кучукова

Банк секторындағы қаржылық технологиялар: келешектері және қауіпсіздік мәселелері

Аңдатпа

Мақсаты: Қаржылық технологиялар банк секторына жылдан жылға әсер етуде. Мақалада «қаржылық технологиялар» терминіне халықаралық ұйымдардың, шетелдік, ресейлік және қазақстандық сарапшылардың анықтамалары берілген. Тақырыптың өзектілігі қаржы технологиялары дамуының күрт өсуімен, төртінші өнеркәсіптік революция жағдайында банк секторын диджитализациялаудың таралуымен негізделеді. Зерттеудің мақсаты – цифрлық технологиялардың қаржы секторына әсерін зерделеу.

Әдісі: Әлемдегі және Қазақстандағы қаржылық технологиялардың негізгі санаттары қарастырылды. Банк саласындағы қаржылық технологиялардың күшті және әлсіз жақтарына, мүмкіндіктері мен қауіптеріне талдау жүргізілді.

Қорытынды: Цифрлық трансформация қауіпсіздікті үнемі қамтамасыз етуді талап ететін мобильді деректерді енгізудің кең мүмкіндіктеріне жол ашады. Сонымен қатар, ақпараттық технологиялардың белсенді дамуы қаржы секторын икемділікке және барлық бағыттар бойынша инновациялық тәсілдерді қолдануға ынталандыруы тиіс. Сондай-ақ, материалда банктік қызметтер саласындағы цифрландырудың алғышарттары мен себептері келтірілген.

Тұжырымдама: Банк қызметтерінің дәстүрлі түрлерінің технологиялық дамудың жаңа деңгейіне өтуінің баламасыз перспективасын атай отырып, талдау қаржы технологиялары дамуының деректер қауіпсіздігіне тікелей тәуелділігін көрсетеді. Осыған байланысты, банк қызметінің әрбір субъектісінің ерекшелігін және ерекшеліктерді есепке ала отырып басымдықтарды тиімді бөлу өзекті болып табылады. Өсіп келе жатқан бәсекелестік жағдайында банктің неғұрлым ұтымды және цифрлық дамуға бағытталған стратегиясы да маңызды мәнге ие болады.

Кілт сөздер: қаржылық технологиялар, банк секторы, қауіпсіздік, цифрландыру, интернет банкинг, киберқауіпсіздік, транзакциялар, SWOT-талдау.

А.Г. Мукушева, М.Т. Жоламанова, Н.К. Кучукова

Финансовые технологии в банковском секторе: вопросы перспектив и безопасности

Аннотация

Цель: С каждым годом финансовые технологии оказывают все большее влияние на банковский сектор. В статье дано определение термина «финансовые технологии» международными организациями, зарубежными, российскими и казахстанскими экспертами. Актуальность темы обосновывается резким ростом развития финансовых технологий, распространением диджитализации банковского сектора в условиях четвертой промышленной революции. Цель исследования – изучение влияния цифровых технологий на финансовый сектор.

Методы: Рассматриваются основные категории финансовых технологий в мире и Казахстане, в частности, проводится анализ сильных и слабых сторон, возможностей и угроз финансовых технологий в банковской сфере.

Результаты: Цифровая трансформация открывает путь к широким возможностям внедрения мобильных данных, требующих постоянного обеспечения безопасности. Кроме того, активное развитие информационных технологий должно стимулировать финансовый сектор к гибкости и применению инновационных подходов по всем направлениям. В материале также приводятся предпосылки и причины цифровизации в сфере банковских услуг.

Выводы: Отмечая безальтернативную перспективу перехода традиционных видов банковских услуг на новый уровень технологического развития, анализ показывает прямую зависимость развития финансовых технологий с безопасностью данных. В этой связи актуальным представляется эффективное распределение приоритетов с учетом особенностей и специфики каждого субъекта банковской деятельности. В условиях растущей конкуренции важное значение также приобретает наиболее рациональная и ориентированная на цифровое развитие стратегия банка.

Ключевые слова: финансовые технологии, банковский сектор, безопасность, цифровизация, интернет-банкинг, кибербезопасность, транзакции, SWOT-анализ.

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DOI 10.31489/2021Ec1/103-113
JEL: J24, N70, O38, O47
UDC: 331.101; 332.13

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Assessment of the impact of labor productivity on the effectiveness of innovative activities in Kazakhstan and the Northwestern Federal District of Russia

Abstract

Object: In many foreign countries, growth in labor productivity leads to a reduction in working hours. But these processes are not always proportional and depend on the correlation of social and economic priorities of states, on the conditions of general globalization and neoliberalization. The unfavorable ratio of the internal price proportions of some states and the low level of development of technics and technology act as obstacles to increasing the rate of economic growth. In such conditions, a reduction in working hours will inevitably lead to a reduction in the country's economic potential and the level of income of citizens. The purpose of this article is to study the nature of labor productivity and analyze the relationship between the proportions of labor productivity and the volume of production of innovative products in Russia and Kazakhstan as the largest EAEU states that determine development trends in the region.

Methods: The collected data on the relationship between labor productivity and the volume of output of innovative products were analyzed using cluster analysis and nonparametric Data Envelopment Analysis (DEA).

Findings: Labor productivity affects the level of innovative development and affects the overall economic development of individual regions and countries as a whole. The analysis of these processes is very important for the formation of state development policy. Therefore, this study examines the relationship between labor productivity and the volume of innovative products, as well as examines similar processes in certain regions of Russia and Kazakhstan.

Conclusions: According to the results obtained, the following hypotheses were accepted: in Kazakhstan and Russia, labor productivity directly affects the innovative production of products. This influence is different in the regions of both countries. In Kazakhstan and Russia, there are regions that are similar in characteristics of the processes of the impact of labor productivity on innovative output, and for them similar measures to improve state policy are recommended.

Keywords: labor productivity; innovative production; nonparametric analysis; cluster analysis; data environment analysis; Russia; Northwestern Federal District; Kazakhstan.

Introduction

In classical political economy, a hypothesis was formulated (which has now become an axiom) that the amount of labor time spent determines the amount of value created, and this, in turn, determines the welfare of the state. Moreover, for a number of states and territories, the amount of working time, and with it “living labor”, is the so-called “marginal resource”, which determines and restrains (in case of its insufficiency) the growth of total income.

The history of the industrial development of mankind testifies that with the growth of labor productivity, the duration of the working time decreases. At the same time, it is obvious that the rate of reduction of working time is lower than the rate of general economic growth and the rate of growth of labor productivity, precisely because labor time is the main source of an increase in the total mass of income, which is only partially converted into an increase in free time. It can be said that the real proportions of such "partial conversion" depend on the ratio of social and economic priorities of states, along with dependence on the level of labor productivity and the level of development of the country.

Moreover, the process of transformation of labor productivity in free time, which, of course, proceeds at different rates in the countries of the world, is also aggravated by the conditions of general globalization and neoliberalization. These conditions became an important basis for the solution of the "rich" countries of the issue of the heterogeneity of materialized labor, when high-income stages of certain types of economic activity were concentrated on their territory, and low-income ones were transferred to other countries. In essence, the rapid growth in productivity and well-being of the “rich” countries was formed due to the fixation of un-

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favorable production proportions and over-exploitation of the population of “developing” countries (“poor” countries, countries of the “third” world).

This is the reason for the fundamental impossibility of reducing the general fund of working hours (given the prevailing price ratios) in countries with middle (South Korea, Spain, Italy) and low (Russia, Mexico, Kazakhstan) income levels and relatively long working hours. In such conditions, a reduction in working hours will inevitably lead to a reduction in the economic potential of the country and the level of income of citizens.

In turn, such an unfavorable ratio of the price proportions of these states and the low level of development of technology and technology act as obstacles to the formation of the so-called "middle class", a group of the population that has an average income level and at the same time is majority, which allows it to stabilize the social structure of the state ... Low-income countries with large hours of work are characterized by a smaller (and often insignificantly small) part of the population earning the average income level, while the majority group is represented by people with lower middle income. Therefore, often measures that are aimed at social support of the population are not in the nature of stimulating personal growth and self-improvement of the population, but assistance in solving vital problems, such as buying food, durable goods, paying for utilities.

In this sense, it is important to investigate the nature of labor productivity and assess possible directions for improving public policy. The objects of study were the Russian Federation (RF) and the Republic of Kazakhstan (RK), as the largest EAEU states, which determine development trends in the region.

In Russia and Kazakhstan, there are opposite trends in population dynamics (table 1).

Table 1. Population dynamics in the Russian Federation and the Republic of Kazakhstan in 2013-2017

	2013	**2014**	**2015**	**2016**	**2017**
	Natural population growth, thousand people				
Russia	24	31	32	-2	-136
Kazakhstan	251	269	266	270	261
	Balance of migration of the population, thousand people				
Russia	296	271	246	262	212
Kazakhstan	0	-12	-14	-21	-22
	Total				
Russia	320	302	278	260	76
Kazakhstan	251	257	252	249	239
Note - calculated by the authors based on data (Miropolsky D.Yu., Yakshibaeva G.V., 2018)					

It is typical for Russia to compensate for its negative or small natural population growth at the expense of citizens of the EAEU member states, in particular Kazakhstan. This becomes possible because in the EAEU region, Russia has the highest wages and is most provided with a variety of jobs. It is important to note that the unemployment rate in the Republic of Kazakhstan and the Russian Federation is comparable, about 5% (see table 2).

Table 2. Comparison of the conditions for the functioning of the labor market in the Russian Federation and the Republic of Kazakhstan according to 2018 data

Index	**Russia**	**Kazakhstan**
Unemployment rate	5.2%	4.9%
Informal employment	20.5%	24.5%
Prevailing type of employment contracts	indefinite or long term	for 6-12 months
The share of those receiving wages "in envelopes"	up to 40%	about 0%
The level of wages in terms of dollar equivalent	$ 536	$ 474
Note - calculated by the authors based on data (Mramornova O.V., Ivanova N.A., Abuova Zh.U., 2018 and Banki24.by, 2019)		

The level of informal employment is also comparable, that is, these are the people who work on the basis of an oral agreement and are the least protected part of the employed population.

At the same time, one can single out conditions that are definitely more attractive for workers and act as the basis for migration to Russia to earn money. First of all, this is the level of wages, which in Russia is on average 13% higher than in Kazakhstan. And given the presence of a large percentage of workers who receive "gray" wages, it should be understood that in reality this gap is even greater. Also, an undoubted advantage is the long duration of employment contracts, which increases the employee's sense of stability.

For further analysis and comparison by the level of labor productivity, we decided to select one federal district of the Russian Federation, which can be considered comparable in size to the Republic of Kazakhstan. We stopped at the Northwestern Federal District (NWFD).

The total GRP of the Northwestern Federal District and the Republic of Kazakhstan in 2018 amounted to 9 and 12.5 billion rubles. (the estimate for the Republic of Kazakhstan was obtained on the basis of the official exchange rate of the tenge to the ruble of the National Bank of Kazakhstan for 2018 - www.nationalbank.kz, 2020), which allows us to speak about the relative comparability of economies in scale. A similar situation is observed in terms of the population size, which in 2018 was 14.0 and 18.4 million people. in the Northwestern Federal District and the Republic of Kazakhstan, respectively.

To assess labor productivity, the volume of industrial production is of great importance, which in the Northwestern Federal District is 7028 billion rubles. and 4949 billion rubles. for RK. Already from these data, it becomes clear that the population of the Northwestern Federal District, which is almost 1/3 smaller, is able to obtain a 40% larger industrial product, which makes the assessment of productivity even more relevant.

These objects of study are also of interest because they have a very diverse internal structure, which makes it possible to distinguish different types of economic relations, for which fundamentally different levels of labor productivity are characteristic. So, in the Northwestern Federal District there is a city of federal subordination (St. Petersburg), and in the Republic of Kazakhstan (RK) the capital city of Nur-Sultan, which accumulates capital functions and has a definitely higher level of income and labor productivity, which, however, have little to do with the manufacturing sector. There are also active highly developed industrial centers in the Karaganda and East Kazakhstan regions (RK) and the Leningrad and Novgorod regions (NWFD). In addition to them, there are large centers of the mining industry Atyrau, Kyzylordy, North Kazakhstan regions in the Republic of Kazakhstan and Murmansk, Arkhangelsk regions and the Komi Republic in the Northwestern Federal District.

Taking these features into account, it was decided to cluster the regions of the Northwestern Federal District and the Republic of Kazakhstan in order to identify more homogeneous groups. Further, in homogeneous groups, conduct a nonparametric analysis of the relationship between the output of innovative products and the level of labor productivity.

The main hypothesis of this study: in Kazakhstan and Russia, labor productivity directly affects the innovative production of products. This influence is different in the regions of both countries. In Kazakhstan and Russia, there are regions that are similar in characteristics of the processes of the impact of labor productivity on innovative output and for them similar measures to improve state policy can be recommended.

Literature Review

Studies of the relationship between labor productivity and the level of economic development of the state and its households have been carried out over the past fifty years in various sectors of the economy and countries.

Bernanke B.S. and Parkinson M.L. (Bernanke B.S., Parkinson M.L., 1991) presented the results of a study of short-run increasing returns to labor (SRIRL) in a sample of 10 US manufacturing industries between the two world wars. They took out the impact of a procyclical technology shock on SRIRL.

Sparks C. and Greiner M. (Sparks C., Greiner M., 1997) investigate comparative trends in manufacturing productivity and unit labor costs for the period 1979-1995 in the United States, as well as conduct a comparative analysis of labor productivity in 1994-1995. years of the United States with other countries. They conclude about the impact of technological development on labor productivity and competitiveness of manufactured goods in the United States.

Lovegrove N.C., Fidler S., Harris V.J. (Lovegrove N.C., Fidler S., Harris V.J., 1998) consider the causes of low labor productivity in the UK. The article compares with the overall performance of the United States and compares the performance of UK companies with those of the world's leading companies in the automotive, food processing, food retail, hotels, software and telecommunications industries. Among other findings, the authors focus on technical development and the impact of product market regulation on productivity.

Van Ark B. (Van Ark B., 1999) presents a transnational study that revealed differences in labor productivity and living standards, which are quantitatively and qualitatively large across countries and regions.

Garcia P., Knights P.F., Tilton J.E. in their article note that over the past two decades, labor productivity in the copper industry has sharply increased both in Chile and in the United States. Research attributed the production growth mainly to innovation and technological change, rather than the development of higher quality copper deposits due to the development of new mines and the shift in production from mines with low productivity to mines with high productivity. Although better copper deposits are more important in Chile than in the United States, innovation and technological change have contributed significantly to productivity growth in Chile as well. Thus, the article emphasizes a direct connection between labor productivity and innovative development of production (Garcia P., Knights P.F., Tilton J.E., 2001).

At the International Labor Conference, the Chairman of the Government of the Russian Federation D.A. Medvedev came up with an initiative to reduce the working week for Russians from the current 5 to 4 days. Referring to the successful modern experience of foreign countries, the Prime Minister noted that this is a serious basis for the growth of labor productivity, on the one hand, and freeing up time for the self-development of citizens, on the other hand (Medvedev, 2019).

Golikova, in subsequent comments, noted that the level of wages may either remain or be lower due to a reduction in the volume of working hours (Golikova, 2019). Taking into account international agreements, according to which any innovations in the world of work should not worsen the position of the worker, the question arises about the conditions in which such a rapid increase in productivity can take place.

Goridko N.P. emphasizes that for a number of states and territories, the amount of working time, and with it “living labor”, is the so-called “marginal resource”, which determines and restrains (in case of its insufficiency) the growth of total income. In particular, this state of affairs is typical for the Russian Arctic, the work (Goridko NP, 2016) provides estimates of the potential GRP for the Arkhangelsk and Murmansk regions, the Republics of Karelia and Yakutia (Sakha), on the basis of which it is proved that the economy has significant growth potential due to involving additional labor.

Minakir P.A. notes that the history of the industrial development of mankind shows that with an increase in labor productivity, the duration of working hours decreases. At the same time, it is obvious that the rate of reduction of working time is lower than the rate of general economic growth and the rate of growth of labor productivity, precisely because labor time is the main source of increase in the total mass of income, which is only partially converted into an increase in free time (Minakir P.A., 2019).

He also identifies two groups of conditionally “rich” countries, which have different attitudes towards working hours. The first group (USA, Japan, Canada) sees a priority in increasing the welfare and income level for citizens and building up the economic potential for the state. On the other hand, Germany, France, Switzerland considers personal freedom and development as an unconditional priority. As a result, the first increase in productivity is directed to additional labor activity, and the second to reduce working hours.

Roslyakova N.A. and Novikov A.B. (Roslyakova N.A., Novikov A.B., 2019) emphasize that the process of transformation of labor productivity in free time, which, of course, takes place at different rates in the countries of the world, is also aggravated by the conditions of general globalization and neoliberalization.

Kazmina I. et al. in the article investigate the role of the 4th industrial revolution in the growth of labor productivity. Considering that sustainable development of the economy is associated not only with the progress of Industry 4.0, but also with the improvement of the labor market in advanced economies, which creates new jobs, professions and personnel (Kazmina I., Lukyanov P., Zhminko N., Savchenko I., Yusupova G., Zatsarinnaya E., 2020).

Thus, these conditions became an important basis for the solution of the "rich" countries of the issue of the heterogeneity of materialized labor, when high-income stages of certain types of economic activity were concentrated on their territory, and low-income ones were transferred to other countries. In essence, the rapid growth in productivity and prosperity of the "rich" countries was formed by fixing unfavorable production proportions and over-exploitation of the population of the "developing" countries ("poor" countries, countries of the "third" world).

Methods

In the study, we examined 27 regions, 11 regions of the Northwestern Federal District and 16 regions of Kazakhstan.

At the first stage of the study, the clustering method was used. Clustering or cluster analysis groups many objects into a subset in such a way that the objects of one cluster are as similar to each other as possible, and objects from different clusters have the maximum number of criteria that are different from each other.

As a result of the cluster analysis, groups of regions with similar development trends were identified; it was carried out for individual years in the period from 2015 to 2017. Labor productivity and the release of innovative products were chosen as the classification features, as an expression of the most high-tech production activity. All indicators have been normalized.

We chose the k-means clustering method. The k-means method is a cluster analysis method, the purpose of which is to divide all available observations of observations into k clusters, with each observation belonging to the cluster to the center of which it is closest. As a measure of proximity, we used the Euclidean distance.

The analysis of the relationship between the output of innovative products and the level of labor productivity was carried out using the method of nonparametric analysis - data environment analysis, which is based on M. Farrell's neoclassical approach to assessing the technical efficiency of resources in a stochastic boundary production function (Farrel J. Michael, 1957).

When comparing a set of objects (decision making units, DMU) by the number of resources used and the results obtained, those objects are recognized as technically efficient that provide the maximum output per unit of resources spent.

The essence of the method is that for a certain set of objects (DMU), represented by enterprises, firms, regions, etc., reference objects are determined, characterized by the best indicators of return on the use of resources (the ratio of the product / result to the resource / costs).

If, with an increase in the amount of a resource, its return in the reference objects does not decrease (the products increase proportionally), then such reference objects are at the border of production capabilities with a constant effect of scale - CRS (Constant Returns to Scale), which represents the bisector on the coordinate system of consumed resources and manufactured products. If, with an increase in the amount of a resource, its return changes (products increase disproportionately), then the boundary of production possibilities represent the shape of a curve passing through objects with the least amount of consumed resources - the boundary of production possibilities with variable returns to scale - VRS (Variable Returns to Scale).

The technical efficiency of facilities lying on the production capability boundary is equal to one.

The main attractive property of the DEA method is related to the fact that efficiency is calculated for each object using one aggregate indicator, without imposing restrictions on the functional form of the relationship between costs and performance, and identifies real objects with "best practice" as reference, rather than calculating averaged trends / indicators.

Results

According to the Euclidean distance method, the most reliable estimates were obtained for 4 clusters, therefore, further 3 clusterings were carried out for each year using the k-means method, focused on obtaining four clusters. Generalizations about the received groups are presented in table 3.

Table 3. Clustering results, typical regions and an estimate of the cluster average productivity

		Cluster 1	**Cluster 2**	**Cluster 3**	**Cluster 4**
2015	Typical region	Akmola region Novgorod region	West Kazakhstan region Leningrad region	Atyrau region	Vologda region Nur-Sultan
	Number of regions	16	5	4	2
	Average labor productivity	0.2	0.4	0.9	0.5
2016	Typical region	Pavlodar region	Vologda region	Atyrau region	St. Petersburg Nur-Sultan
	Number of regions	17	5	3	2
	Average labor productivity	0.2	0.4	0.9	0.8
2017	Typical region	Novgorod region North Kazakhstan region	Arkhangelsk region Pavlodar region	Almaty	St. Petersburg Nur-Sultan
	Number of regions	16	2	7	2
	Average labor productivity	0.2	0.3	0.7	0.8
Note - calculated by the authors					

From Table 3, it can be seen that the most numerous is the group of regions with the lowest labor productivity, which partly confirms the problems described above. Then there are the few groups with higher labor productivity, among which the capital cities occupy a special place (cluster 4 in 2016-2017). Figure 1 shows the average values obtained for clusters in different years.

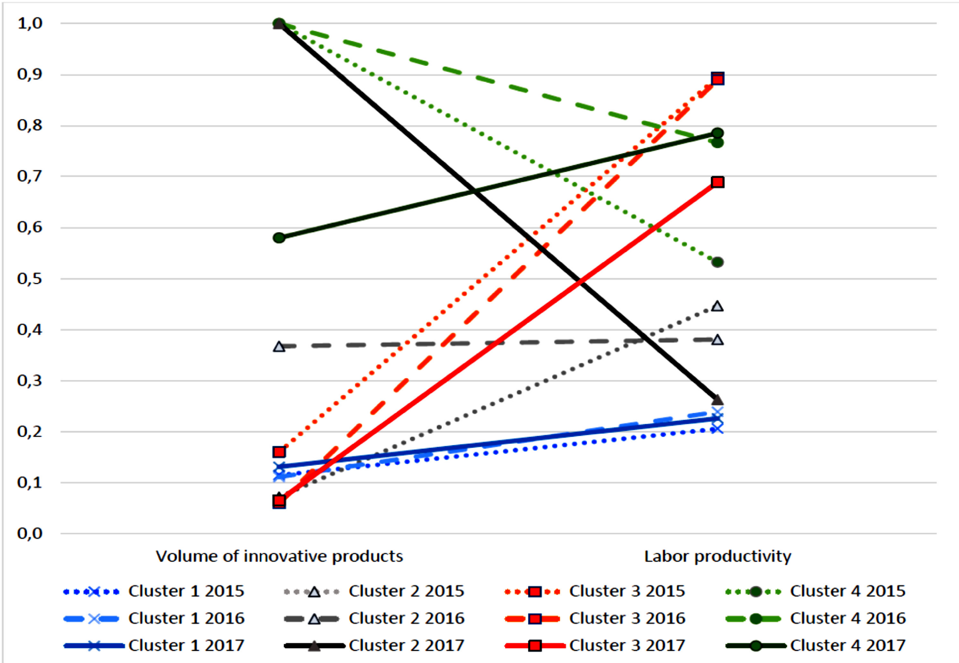

Figure 1. Graph of average values of parameters for clusters in different years (2015-2017)

Note - compiled by authors.

The graph shows cluster 1, the regions of which, having relatively low labor productivity, have extremely low rates of innovative production. Also noteworthy is cluster 3, where, with high labor productivity, there is an extremely low output of innovative products.

Cluster 1 can be classified as depressed regions with low potential for technological renewal and economic growth. We can say that these are the regions in which at the interregional level there are the lowest (unfavorable for regional producers) prices, which lead to the oppression of production activities and the outflow of labor resources to more favorable regions.

Cluster 3 - these are regions that are typical producers of traditional products (first of all, this concerns the extraction and production of primary resources), it should be noted that this group is expanding, which indicates the conditions in which it is beneficial to switch to the production of primary products, because only it is competitive (the consequences of globalization discussed above). Often, such industries are well-equipped and have a fairly high technological level, but all this concerns the means of labor. The subject of labor and, accordingly, the resulting product cannot become traditional and innovative here. The most important basis for technological development and expansion of production in such regions, in our opinion, is the market capacity. So, researchers (Petrenko E.S., Vechkinzova E.A., Urazbekov A.K., 2019) note that there is often no need to purchase the most modern and high-performance equipment, since it will be idle most of the time or work conditionally at 1/10 of its maximum productivity. That is, the potential for development here lies in the expansion of production of higher value added, which could become consumers and processors of the increased flow of traditional goods (resources).

Regarding cluster 4, we made remarks above that the metropolitan position allows for a large volume of production of innovative products, rather due to the favorable price ratio, which stimulates the production of more expensive products, and the presence of a large number of diverse and qualified personnel. In our opinion, the level of labor productivity for the production of innovative products is not a cornerstone.

Of interest is cluster 2, which was the most unstable in composition for the 3 years under consideration and judging by the significant change in the volume of innovative products output against the background of a relatively stable level of labor productivity, we can say that these are the regions that have undergone the greatest transformations associated with the establishment and launch of innovative industries. however, it should be noted that this group of regions decreases from 5 to 2 regions, that is, the processes taking place in them are not typical.

The next stage of the study was to analyze the relationship between the release of innovative products and the level of labor productivity. To obtain such estimates, we used DEA (Roslyakova N.A., 2018). The use of a single parameter as an input (performance) to form a single output (innovative products) allows you to eliminate the action of other factors and highlight the influence of only the performance parameter, it also opens up opportunities for visualizing the results. Since there are restrictions on constructing estimates for several regions (in particular, in 2017, clusters 2 and 4 had only 2 regions each), estimates will be built for clusters 1 and 3. We also oriented the model towards the output in order to find the answer to the question on question: what volume of innovative products can be obtained at the current level of labor productivity.

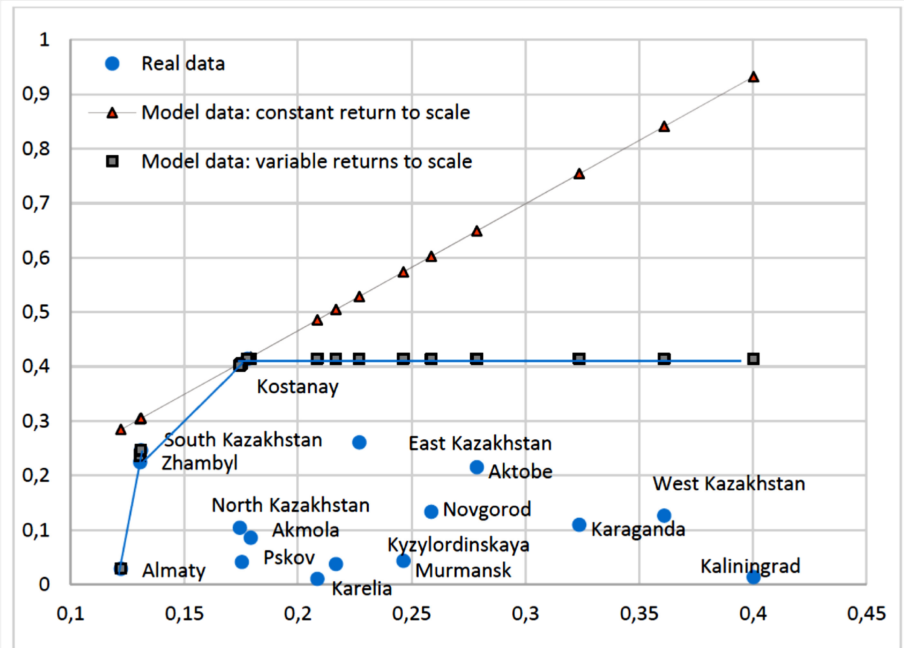

Figure 2. Estimates of the optimal level of innovative production at a given level of productivity for models with constant (CRS) and variable (VRS) scales for the regions of cluster 1 according to 2017 data.

Note - compiled by authors.

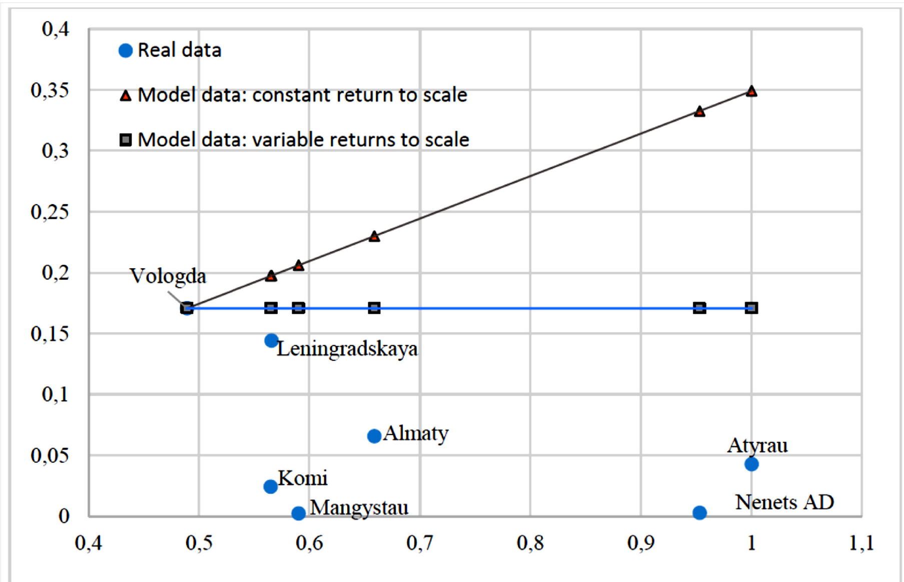

Figure 3. Estimates of the optimal level of innovative production at a given level of productivity for models with constant (CRS) and variable (VRS) scales for the regions of cluster 3 according to 2017 data.

Note - compiled by authors.

Figures 2 and 3 show that the option with increasing returns seems more realistic, since there is a certain limit on the output of innovative products that is available to the regions. It can be understood that this level of production of innovative products for the regions of cluster 1 corresponds to the indicators of the

Kostanay region of the Republic of Kazakhstan in 2017 (given in rubles). For cluster 3, it corresponds to the output level of the Vologda region.

Conclusions

In our opinion, in order to resolve these issues, it is necessary to develop new forms of economic activity that will eliminate the contradictions inherent in the neoliberal and neoindustrial concepts, when the goals of socializing the economy are proclaimed, strengthening the social orientation of economic growth and development, but at the same time there is a primacy of market competitiveness, which should ensured primarily due to the flexibility of the labor market, which leads to the emergence of more and more sophisticated forms of exploitation of labor, knowledge, qualifications, quality of life.

For the regions of cluster 1, such decisions may be associated with supporting the development of SMEs (small and medium-sized businesses) among the self-employed and unemployed population based on the development of microcrediting. Moreover, the Republic of Kazakhstan has a positive experience in this area, so in 2017, 7,227 such loans were issued in the amount of about 32 billion tenge (an average size of 4.42 million tenge). In 2018, about 14 thousand people attracted loans for business in the amount of 62 billion tenge. At the same time, on the Russian microcredit market with a volume of 121 billion rubles (about 650 billion tenge), the share of loans to support SMEs is negligible. We can say that in Russia there is no instrument as such.

Also, in Kazakhstan, there is a bias towards lending and supporting SMEs in rural areas (up to 83% of all planned microcredits in 2019-2021 are targeted at rural areas). At the same time, the documents of the Russian Federation do not indicate the problem of developing SMEs outside the regional centers. There are monotowns as a focus.

On the other hand, in Kazakhstan, there is a lack of competence of potential entrepreneurs, especially from rural areas, which hinders their successful work. Here, the experience of Russia in the formation of regional teams with professional economists-curators for the development of the level of professional training of future entrepreneurs and the development of a business plan can be useful here.

For cluster 3, where there is a fairly large business that is concentrated on the production of primary resources, it is important to establish new industries that will act as consumers of resources and will allow the professional development of the population to be realized, ensuring an increase in productivity and income. It is also worth noting that the development of public-private partnership mechanisms in this area allows to ensure the flow of private funds and form the basis for attracting services and products from SMEs to such projects.

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Қазақстанда және Ресейдің Солтүстік-Батыс федералдық округінде еңбек өнімділігінің инновациялық қызметтің тиімділігіне әсерін бағалау

Аңдатпа:

Мақсаты: Көптеген шет елдерде еңбек өнімділігінің өсуі жұмыс уақытының қысқаруына алып келеді. Бірақ бұл процестер әрдайым пропорционалды емес және мемлекеттердің әлеуметтік-экономикалық басымдықтарының арақатынасына, жалпы жаһандану мен неолиберализация жағдайларына байланысты. Кейбір мемлекеттердің ішкі баға пропорцияларының қолайсыз арақатынасы және технологиялар мен технологиялардың дамуының төмен деңгейі экономикалық өсу қарқынын арттыруға кедергі болып табылады. Мұндай жағдайларда жұмыс уақытының қысқаруы сөзсіз, яғни елдің экономикалық әлеуеті мен азаматтардың табыс деңгейінің төмендеуіне әкеледі. Осы мақаланың мақсаты еңбек өнімділігінің сипатын зерттеу және өңірдегі даму үрдістерін айқындайтын ЕАЭО-ның ең ірі мемлекеттері ретінде Ресей мен Қазақстанның Еңбек өнімділігі пропорциялары мен инновациялық өнім шығару көлемінің өзара байланысын талдау болып табылады.

Әдісі: Еңбек өнімділігі мен инновациялық өнім шығару көлемі арасындағы өзара байланыс туралы жиналған деректерді кластерлік талдау және параметрлік емес талдау — Data Envelopment Analysis (DEA) әдістерін пайдалана отырып талданды.

Қорытынды: Еңбек өнімділігі инновациялық даму деңгейімен тығыз байланысты және жекелеген өңірлер мен тұтастай елдердің жалпы экономикалық дамуына әсер етеді. Бұл процестерді талдау мемлекеттік даму саясатын қалыптастыру үшін өте маңызды. Сондықтан осы зерттеуде еңбек өнімділігі мен инновациялық өнім шығару көлемі арасындағы өзара байланыс талданған, сондай-ақ Ресей мен Қазақстанның жекелеген өңірлеріндегі ұқсас процестер көрсетілген.

Тұжырымдама: Алынған нәтижелерге сәйкес мынадай гипотезалар қабылданды: Қазақстан мен Ресейде еңбек өнімділігі өнімнің инновациялық шығарылуына тікелей әсер етеді. Бұл әсер екі елдің аймақтарында әр түрлі. Қазақстан мен Ресейде еңбек өнімділігінің инновациялық шығарылымға әсер ету процестерінің сипаттамалары бойынша ұқсас өңірлер бар және олар үшін мемлекеттік саясатты жетілдірудің ұқсас шаралары ұсынылған.

Кілт сөздер: еңбек өнімділігі, инновациялық өндіріс, кластерлік талдау, жұмыс істеу ортасын параметрлік емес талдау (DEA), Ресей, Солтүстік-Батыс федералдық округі, Қазақстан.

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Оценка влияния производительности труда на эффективность инновационной деятельности в Казахстане и Северо-Западном федеральном округе России

Аннотация

Цель: Во многих зарубежных странах рост производительности труда ведет к сокращению рабочего времени. Но не всегда эти процессы пропорциональны и зависят от соотношения социальных и экономических приоритетов государств, условий всеобщей глобализации и неолиберализации. Невыгодное соотношение внутренних ценовых пропорций некоторых государств и низкий уровень развития техники и технологии выступают препятствиями для увеличения темпов экономического роста. В подобных условиях сокращение рабочего времени неизбежно будет вести к сокращению экономического потенциала страны и уровня дохода граждан. Целью данной статьи является исследование характера производительности труда и анализ взаимосвязи пропорций производительности труда и объема выпуска инновационной продукции России и Казахстана как самых крупных государств ЕАЭС, которые определяют тенденции развития в регионе.

Методы: Собранные данные о взаимосвязи между производительностью труда и объемом выпуска инновационной продукции были проанализированы с использованием методов кластерного анализа и непараметрического анализа — Data Envelopment Analysis (DEA).

Результаты: Производительность труда тесно связана с уровнем инновационного развития и оказывает влияние на общее экономическое развитие отдельных регионов и стран в целом. Анализ этих процессов очень важен для формирования государственной политики развития. Поэтому в данном исследовании анализируется взаимосвязь между производительностью труда и объемом выпуска инновационной продукции, а также выявляются сходные процессы в отдельных регионах России и Казахстана.

Выводы: Согласно полученным результатам, были приняты следующие гипотезы: в Казахстане и России производительность труда напрямую влияет на инновационный выпуск продукции. Это влияние различно по регионам обеих стран. В Казахстане и России существуют регионы, схожие по характеристикам процессов влияния производительности труда на инновационный выпуск, и для них рекомендованы схожие меры совершенствования государственной политики.

Ключевые слова: производительность труда, инновационное производство, кластерный анализ, непараметрический анализ среды функционирования (DEA), Россия, Северо-Западный федеральный округ, Казахстан.

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DOI 10.31489/2021Ec1/114-124
JEL I21, I24
UDC 376.3 (574)

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Inclusive education in the republic of Kazakhstan and factors affecting its development

Abstract

Object: is the system of inclusive education in the context of state management policy.

The methods: The following methods were used in the study: theoretical, empirical methods**,** methods of high-quality data processing, methods of mathematical and statistical processing: ranking, correlation.

An econometric model was constructed to test the hypothesis that there is a relationship between the growth rate of the number of children enrolled in inclusive education and the growth rate of the number of teachers in general education schools.

The conclusions and results of the study were presented using a graphical method of presenting the results obtained.

Findings: The author hypothesized that there is a relationship between the growth rate of the number of children enrolled in inclusive education and the growth rate of the number of teachers in general education schools. To prove or refute this hypothesis, the author conducted a regression analysis, which resulted in the conclusion that an increase in the number of teachers in general education schools is a significant and necessary condition for the further development of inclusive education.

Conclusions: Based on the regression analysis, the author of the article concluded that the increase in the number of teachers of general education schools contributes to an increase in the number of children enrolled in inclusive education.

The research analysis on the studied problem shows that at the present stage inclusion is the leading trend in the development of the education system. The quality of the development of inclusive education in Kazakhstan raises many questions for researchers, including the ineffectiveness of the use of innovative forms of education in inclusive education, the lack of knowledge of international experience, etc.

Keywords: inclusive education, education system, inclusion, management, preschool education, regulation, management system, innovative education.

Introduction

Inclusive education is currently an innovative process, which is based on an ideology that excludes any discrimination and ensures equal treatment of all people, while creating special conditions for children with special educational needs. This approach in education is recognized by the entire world community as the most humane, effective and socially significant and is one of the main in state and educational policy.

The idea of inclusive education today is actively developing in Kazakhstani society, but normative documents governing the process are not being adopted. The Education Act states that persons with special educational needs are children who experience permanent or temporary difficulties in obtaining education, which are due to their health condition. This led to the fact that inclusive education began to be interpreted as education for children with disabilities. Although these children are just one of the categories of children with special educational needs. Therefore, the implementation of inclusive education in the Republic of Kazakhstan raises for our state the question of the need to change public administration in the education system in the implementation of inclusive education in the context of globalization and digitalization of new learning technologies.

Literature Review

Many scientists are engaged in the problem of inclusive education. For example, Dyssegaard C.B., Larsen M.S. in their research they describe that as inclusive education develops, there is a gradual convergence of the systems of special and general education, united by common ideas in achieving success and sharing responsibility for its results (Dyssegaard et al.,55).

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Giangrego, M., Doyle M.B. argue that, in accordance with the strategic goals of the international educational process, the implementation of inclusive education presupposes a set of cardinal changes and modifications aimed at promoting anti-discrimination policies, creating an inclusive society and improving the quality of education for all children in line with the broad range of their educational needs (Giangreno et al., 63).

Safonova TV, Suntsova AS, Aslaeva RG consider the personality-oriented model of interaction with children as a structural component of professional readiness for inclusive education(Saphonova et al.,50), the purpose of which is to identify and analyze the features of the model interaction with learners from teachers of various types of educational organizations. (Svenja et al.,569).

Timo S., and also Biktagirova G. F., Khitryuk V. V. They put forward their hypotheses about the need to rely on special (correctional) educational institutions as resource centers for supporting the practice of inclusion (Timo,560; Biktagirova et al.,185).

According to Hosford S., O'Sullivan SA, the teacher of an inclusive school should be ready for multifunctional activities, master the technologies of multi-level teaching, taking into account the individual and personal characteristics of students, at the same time teach children with different educational needs and opportunities (Hosford et al., 604) .

A significant problem, according to J. Sagner-Tapia, S. Schlessinger, is the restrictions applied by teachers to the inclusion of children with disabilities in general classes, since not all teachers are ready to encourage the participation of all without restrictions. The teachers themselves associate unpreparedness not so much with professional skills as with the attitude towards disability and the ability to learn determined by it (Sagner-Tapia et al.,.375; Schlessinger, 268).

The term "inclusive education" was brought to Kazakhstan by the National Scientific and Practical Center for Correctional Pedagogy (until 2004 it was called the "Republican Scientific and Practical Center for Social Adaptation, Vocational and Labor Rehabilitation of Children with Development Disabilities - RNTSP SATR") (Suleimenova, 2015).

In our opinion, inclusive education implies the individualization and differentiation of the environment and education in accordance with the needs of various children - gifted, with language problems, behavioral problems, etc.

Results and discussions

The author hypothesized that there is a relationship between the number of children enrolled in inclusive education and such factors as the number of qualified teachers in secondary schools and the use of Internet technologies. The use of Internet technologies for children with disabilities is of great importance and is part of the system of requirements for ensuring physical and informational accessibility of education for this category of schoolchildren and creating a barrier-free educational environment for them. Therefore, as a factor affecting the number of children covered by inclusive education, such an indicator as Internet technologies was taken.

To estimate the parameters of the two-factor regression equation, statistical data of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan for the period from 2010 to 2019 were used.

To prove or refute these hypotheses, the author conducted a regression analysis, as a result of which it was concluded that the use of Internet technologies, as well as the number of qualified teachers in general education schools is a significant and necessary condition for the further development of inclusive education, which is one of the most important tasks of the state policy of the Republic of Kazakhstan in the field of education.

The realization of the rights of children with disabilities to education is considered as one of the most important tasks of the state policy of the Republic of Kazakhstan in the field of education. Obtaining high-quality education by children with disabilities is one of the basic and inalienable conditions for their successful socialization, ensuring their full participation in society, effective self-realization in various types of professional and social activities. The legislation of the Republic of Kazakhstan, in accordance with the fundamental international documents in the field of education, provides for the principle of equal rights to education for persons with disabilities.

The problem of inclusive education has a significant impact on the socio-economic development of the country. This is evidenced by data obtained in the course of studies by UNESCO, according to which the losses from disability of a part of the population in Europe and Central Asia amount to at least 35.6% of global GDP.

According to the World Health Organization (hereinafter - WHO), inclusive education is based on the right of all students to receive quality education that meets basic educational needs.

As defined by UNESCO, inclusive education refers to the process of meeting the diverse needs of all learners by increasing their participation in learning, cultural activities and community life, as well as reducing social exclusion within the education system and preventing exclusion from it.

The modern education system is focused primarily on students who meet certain requirements, who are able to study according to a common program for all. As a result, children with disabilities do not have the opportunity and conditions to participate in the general educational process. It is inclusive education that will help solve this problem.

Inclusion in education is reflected in the principles that make school education accessible to all children: ensuring physical access for students with disabilities to schools (transport, ramps, lifts); development of a mobile curriculum structure and a variety of educational methods to meet the needs of all students, including:

– the need for full-fledged and diverse personal formation and development - taking into account individual inclinations, interests, motives and abilities (personal success);

– the need for a person's organic entry into the social environment and fruitful participation in the life of society (social success);

– the need for the development of a person's universal labor and practical skills, readiness to choose a profession (professional success).

A number of factors have contributed to the emergence of an inclusive educational environment.

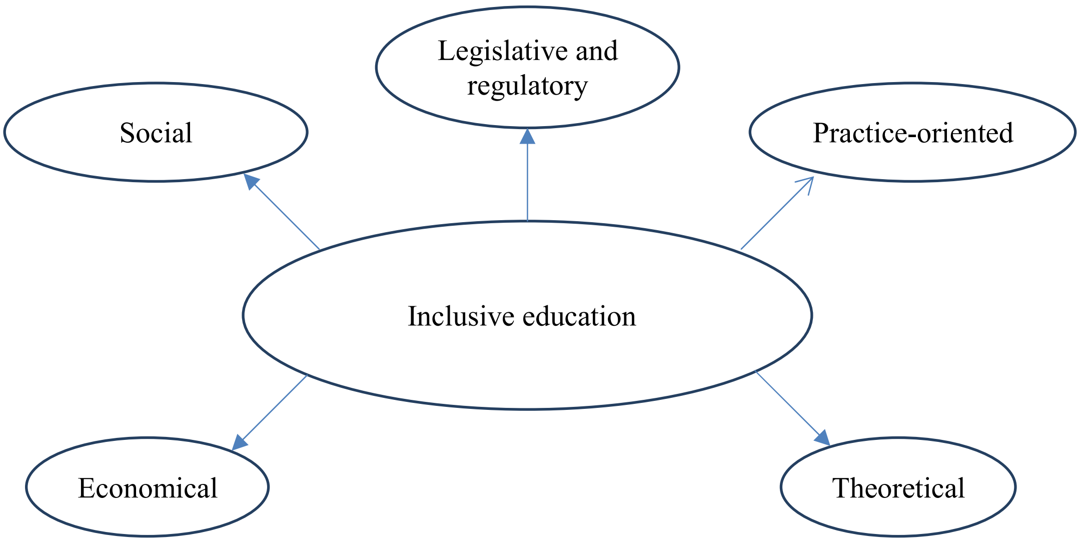

Figure 1. Factors contributing to the development of inclusive education

Note - Compiled by the authors

1. Social:

– society makes new demands on the availability and improvement of the quality of education;

– more and more children are born with disorders of the emotional sphere, intelligence, as well as autistic and other disorders that also need education;

– inclusion of parents in the educational process as a subject of learning.

2. Practice-oriented:

– inclusion of parents of "special" children in the educational process in the role of educators;

– the emergence of the position of "coordinator-methodologist" of inclusion;

– creation of professional communities, retraining courses for specialists in the field of supporting the inclusive educational process.

3. Economic:

– development of human resources.

4 Theoretical:

– the concept of continuing education;

– transition from a "medical" model of understanding disability to a "social" one.

According to international and national legal acts, the policy of inclusive education is implemented through the following regulatory legal acts (Table 1) (Nogaibayev et al.,187).

Table 1. International and national legal acts regulating the issues of inclusive education

Year	Regulatory legal acts regulating the issues of inclusive education
Internationallegalacts	
1948	Universal Declaration of Human Rights
1989	UN Concept on the Rights of the Child
1990	World Declaration on Education for All
	World Declaration on the Protection of the Living and Development of Children
1993	Standard Rules on the Equalization of Opportunities for Persons with Disabilities
1994	Salaman Declaration and Framework for Action on Education for Persons with Special Needs
2000	Dakar Framework for Action, Education for All Movement
2006	UN Concept on the Rights of Persons with Disabilities
Nationallegalacts	
1995	Constitution of the Republic of Kazakhstan
2002	Law on social medical and pedagogical correctional support for children with disabilities
	Law "On the Rights of the Child in the Republic of Kazakhstan"
2005	Law "On social protection of disabled people in the Republic of Kazakhstan"
2007	EducationAct"
2008	Law "On Special Social Services"
2010	State program for the development of education in the Republic of Kazakhstan for 2011-2020
2015	On the approval of Conceptual approaches to the development of inclusive education in the Republic of Kazakhstan
2016	State program for the development of education and science of the Republic of Kazakhstan for 2016-2019.
2017	Standard rules for the activities of types of special educational organizations
Note - Compiled on the basis of the source: Framework for monitoring inclusive education in the Republic of Kazakhstan / G. Nogaybaeva, S. Zhumazhanova, E. Korotkikh - Astana: IAC, 2017 - 28.	

As a result of the study, it was revealed that inclusive education in the territory of the Republic of Kazakhstan (hereinafter referred to as the RK) is regulated by the Constitution of the Republic of Kazakhstan, the Law of the RK No. 319-III of July 27, 2007 "On Education", the State Program for the Development of Education in the Republic of Kazakhstan for 2011-2020 years ", approved by the Decree of the President of the Republic of Kazakhstan No. 1118 dated December 7, 2010 (National educational academy named after Altynsarin, 16, State program,2010).

The Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III (with amendments and additions as of 07.07.2020) defines the term "special conditions for obtaining education" - "conditions including special educational programs and teaching methods , technical and other means, the environment of life, as well as medical, social and other services, without which it is impossible to master general educational and educational programs by persons with OOP "(Law of RK, 2007).

Schools that have created conditions for inclusive education emphasize the importance of comprehensive accounting of both the material and technical, educational, methodological and personnel conditions necessary for the children of the PLO.

The main difficulties in the implementation of inclusive education are associated with the material costs of creating conditions in a general education school for teaching children with OEP. Significant funds are required to provide the school with special teaching materials, technical auxiliary (compensatory) teaching aids, and adaptation of classrooms.

At the same time, the problems of inclusive education cannot be solved locally: it is impossible to create good conditions for children with OOP and not to create a rich and diverse educational environment for other children. The success of the implementation of inclusive education directly depends on the solution of general problems of the school education system, such as high class size, low teacher status, weak ICT equipment, inflexible curriculum and others.

For the quality implementation of inclusive approaches, cooperation with special educators is important. According to the opinion poll, the cooperation of teachers of mass and special educational organizations has not been effectively established in the country.

Analysis of the factors influencing the quality of education of children with OEP, studying the opinions of all participants in the educational process allow us to conclude that the leading factor in the development of inclusive education is a high level of readiness of the teaching staff to work with such children.

In 2018, according to the NED, there are 45 618 children with PLO in the republic aged 0 to 6 years, which is 1.9% of the total population of this age category. In special kindergartens, 5,016 children with OOP were brought up. Special groups of preschool organizations of general type were visited by 9 444 children with OOP, mass groups (inclusively) - 5 529 children with OOP (Figure 2) (Atanaev et al., 364).

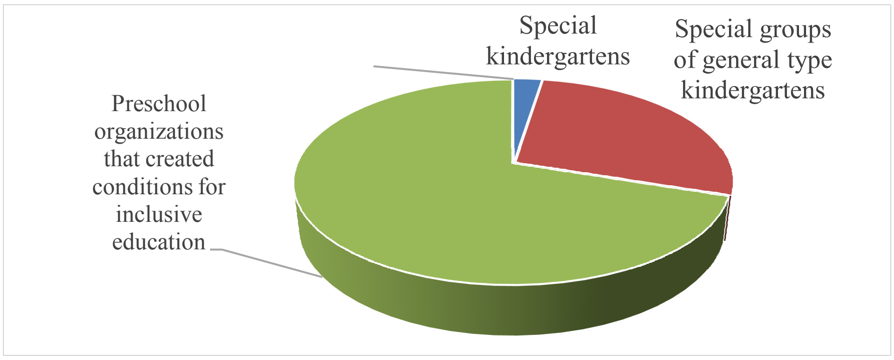

Figure 2. The network of preschool organizations for children with OOP for 2018, units

Note-compiled by the authors

Psychological, medical and pedagogical correctional support for children with OOP is provided in special-purpose kindergartens. The largest number of them operate in Almaty (Nogayboaeva et al.,187), Pavlodar (Hosford et al.,604-620), East Kazakhstan (Biktagirova et al., 185-194) regions. In seven regions: Akmola, Kostanay, Kyzylorda, Almaty, Zhambyl, West Kazakhstan and North Kazakhstan regions - there is no network of special Far East Military District. In these regions, a network of general kindergartens with special groups is developed. In total, there are 206 kindergartens in Kazakhstan, where special groups have been created to work with children with OOP (Table 2) (Atanaeva et al., 364).

Table 2. Network and contingent of children of special preschool educational organizations, units / person

Region	Preschool organizations for special purposes	Which are		Preschool organizations of general type with special in groups	Whichare	
		groups	chidren		groups	children
Republic of Kazakstan	44	325	5016	206	486	9444
Akmola region	0	0	0	19	37	542
Aктube region	4	39	600	10	22	334
Almaty region	0	0	0	15	26	538
Atyrau region	1	5	122	3	3	49
WRK (Western region of Kazakstan)	0	0	0	12	22	257
Zhambyl region	0	0	0	15	66	1822
Karagandy region	1	9	135	23	94	2010
Kostanay region	0	0	0	14	31	424
Kyzylorda region	0	0	0	9	27	604
Mangystau region	2	20	317	2	2	33
Pavlodar region	7	45	679	4	7	106
NRK (Northern region of Kazakhstan)	0	0	0	9	15	189
Turkestan region	5	16	328	29	53	1380
ERK (Eastern region of Kazakhstan)	6	46	724	13	25	429
Nur-Sultan city	2	23	264	21	46	577
Almaty city	11	78	1169	8	10	150
Shymkent city	5	44	678	0	0	0
Note - Compiled on the basis of the source: National report on the state and development of the education system of the Republic of Kazakhstan // 2018						

In 2018, 20.1% of pre-school organizations (1,232 units) created conditions for inclusive education, which is 10.1% higher than in 2016. The highest percentage of preschool organizations that created conditions for children with OOP was registered in Almaty (200 units) and Zhambyl (106 units), Kyzylorda (119 units), Pavlodar (124 units), Turkestan (99 units), Karaganda (70 units) regions (Figure 3).

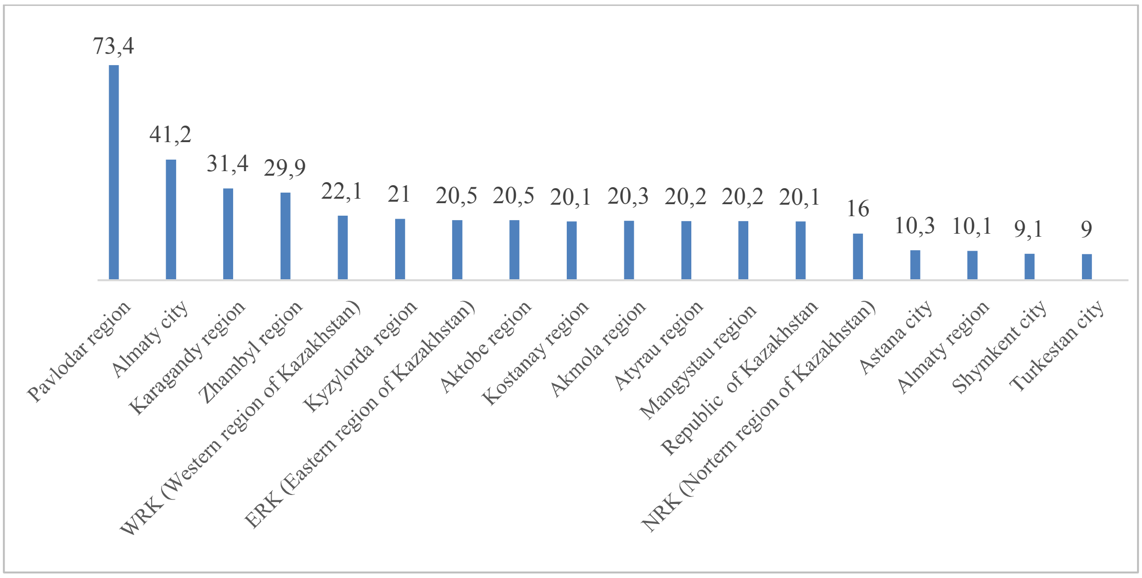

Figure 3. Dynamics of the network of preschool organizations that have created conditions for inclusive education and training in 2018, %

Note-compiled by the authors

In these regions, local Executive bodies pay attention to the development of inclusion and allocate funds to provide educational organizations with special teaching materials, technical auxiliary (compensatory) training facilities, and adaptation of educational premises. If we consider inclusive education with the coverage of school children, then taking into account the regional aspect, the situation looks like this ((Figure 4) (www.kapital.kz).

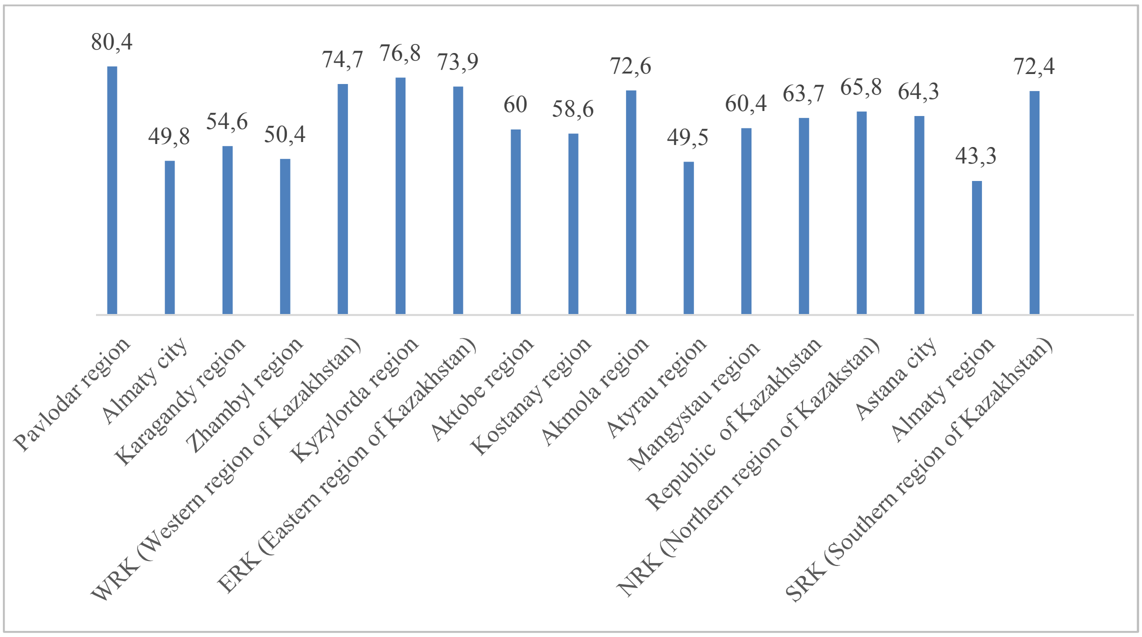

Figure 4. Percentage of schools that have created the conditions for inclusive education in the regional aspect of 2018,%

Note-compiled by the authors

So, on the basis of secondary school No. 27 in Karaganda, which is a republican experimental platform of the Ministry of Education and Science of the Republic of Kazakhstan for the implementation of inclusive education, a sociological survey was conducted on the problem of joint education with children with disabilities (Figure 5).

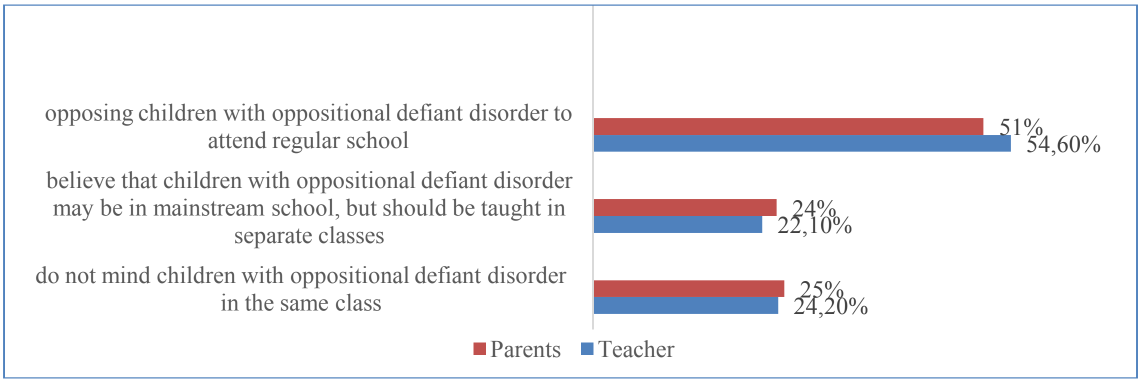

Figure 5. Attitude of teachers and parents to the possibilities of coeducation with children with developmental disabilities

Note-compiled by the authors

The results of the analysis showed that more than half of the respondents (54.6% of teachers, 51% of parents) believe that children with disabilities should be educated in regular general education schools, and not in special educational institutions.

At the same time, a fairly large proportion of the respondents (46.4% of teachers, 49% of parents) do not share the ideology of inclusive education and believe that children with disabilities should study separately from their peers.

Within the framework of the educational program adopted in our country, half of the children with disabilities should be covered by inclusive education. However, experts have doubts that this figure will be achieved.

Thus, according to representatives of the Kenes center, the situation with the implementation of the idea of inclusive education is not developing in the best way. First of all, according to representatives of the center, public consciousness is not developed, including among the parents of ordinary children. Many parents and educators do not understand that being near children with special educational needs means not only educating ordinary children, but also instilling in them ethical standards, such as kindness, caring for the weak, and a sense of justice (Alayev,2016).

To build an econometric model, the author considered indicators that characterize inclusive education in the Republic of Kazakhstan for the period from 2010-2019 (Table 3) (www.stat.gov.kz).

Table 3. Indicators describing inclusive education in the Republic of Kazakhstan for the period from 2010-2019

Indicators	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total number of children with special educational needs, people, of them	149043	151216	148652	138513	141952	141821	144783	147396	153230	161156
- schoolage, person	98657	99847	98247	91264	94115	94266	96555	98000	102329	106743
- preschoolage, person	50386	51369	50405	47249	47837	47555	48228	49396	50901	54413
- included in inclusive education	27281	28793	29015	30984	31047	31957	32125	34920	35276	36172
Number of secondary schools, units	7839	7790	7721	7640	7563	7511	7450	7414	7393	7398
Number of teachers in secondary schools	288477	306492	309755	312533	314591	325184	319167	334205	338755	347052
Equipment of schools with computers	55782	578279	631670	884909	882677	935312	951777	977192	1042813	1124080
Use of Internet technologies	45354	48064	49853	58456	52630	65186	75779	79658	100702	105531

Note-Compiled on the basis of the source: Electronic resource: Data Of the Committee on statistics of the Republic of Kazakhstan for 2010-2019. //www.stat.gov.kz

The author hypothesized that there is a correlation between the growth rate of the number of children enrolled in inclusive education and the rate of the number of teachers in general education schools. To prove or refute this hypothesis, a regression analysis of the statistical data presented in Table 4 was performed.

Table 4. Growth rates of the number of children enrolled in inclusive education, the number of teachers of secondary schools for 2011-2019

Year	The growth rate of the number of children enrolled in inclusive education, %	The growth rate of the number of secondary school teachers, %
2011	5,542	6,245
2012	0,771	1,065
2013	6,786	0,897
2014	0,203	0,658
2015	2,931	3,367
2016	0,526	-1,850
2017	8,700	4,712
2018	1,019	1,361
2019	2,540	2,449
Note-compiled by the authors		

The results of the regression analysis performed using the least squares method are shown in Table 5 (Sedelev, 240).

Table 5. Results of estimating the total number of children enrolled in inclusive education

r	0,843
Fischer Test Variables	4,938*
Increase in the number of children enrolled in inclusive education (%) - dependent variable	
Constant	1,498
	Regression coefficients
Growth rate number of teachers of general education schools (person)	0,822*
* p<0,1; ** p<0,05; *** p<0,01	
Note - Compiled by the author	

The calculations showed that the correlation coefficient for the model: r = 0.843. This value is close to 1, so we can talk about a strong correlation between the variables under consideration. The regression equation as a whole, as well as the regression coefficient, are statistically significant and reliable, at appropriate levels of significance.

Therefore, having a positive value in the regression equation, the effective index, we can confidently say that our hypothesis about the relationship between the growth rate of the number of children covered by inclusive education and the growth in the number of teachers in secondary schools there is a relationship. Therefore, it can be concluded that the increase in the number of teachers of general education schools contributes to an increase in the number of children covered by inclusive education.

Conclusion

Research analysis of the researched problem shows that at the present stage, inclusion is the leading trend in the development of the education system throughout the world community. The quality of development of inclusive education in Kazakhstan raises many questions from researchers, including the inefficiency of using innovative forms of education in inclusive education, insufficient knowledge of international experience, etc.

Interest in this issue is due, in our opinion, to the following reasons:

Kazakhstan is focused on the implementation of development goals, in accordance with the State Program for the Development of Education, therefore there is a need to refer to the experience of domestic science and foreign experience of public administration of inclusive education;

– lack of mass practice of inclusive education in the domestic education system;

– insufficient degree of efficiency of existing forms of organization and public administration of inclusive education in the Republic of Kazakhstan;

– despite the significant steps of Kazakhstan in the development of inclusive education, “barrier-free schools” have not yet been created, the conditions for socialization, vocational training of children with special needs are insufficient, there is not enough teaching staff who are ready to work in an inclusive environment.

These circumstances determine the interest in the analysis of the theory, methodology, forms of organization and the system of public administration of inclusive education in Kazakhstan.

The research methods used on the basis of a trend model to identify and determine the relationship between the number of children enrolled in inclusive education and such factors as the number of teachers in secondary schools and the use of Internet technologies in the Republic of Kazakhstan Allowed us to draw conclusions for further measures for the development of inclusive education.

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Қазақстан Республикасындағы инклюзивті білім беру және оның дамуына әсер етуші факторлар

Аңдатпа:

Мақсаты: Мемлекеттік саяси басқару контексіндегі инклюзивті білім беру жүйесі болып табылады.

Әдістері: Зерттеу аясында мына әдістер қолданылды: теориялық, эмпирикалық әдістер, деректерді сапалы өңдеу әдістері, математикалық және статистикалық өңдеу әдістері: рейтинг, корреляция. Эконометрикалық модель құрылды, ол инклюзивті білім берумен қамтылған балалар санының өсу қарқыны мен жалпы білім беретін мектептердегі мұғалімдер санының өсу қарқыны арасындағы өзара байланыстың болуы туралы гипотезаны тексеруге мүмкіндік берді. Зерттеу нәтижелері мен қорытындылары алынған нәтижелерді ұсынудың графикалық әдісі арқылы ұсынылды. Экономикалық құбылыстарды зерттеудің және бастапқы ақпаратты өңдеудің пайдаланылған әдістері талдаудың сенімділігі мен қорытындылардың дұрыстығын қамтамасыз етеді.

Нәтижелері: Авторлар инклюзивті біліммен қамтылған балалар санының өсу қарқыны мен жалпы білім беретін мектептердегі мұғалімдер санының өсу қарқыны арасында байланыстың болуы туралы гипотеза ұсынды. Бұл гипотезаны дәлелдеу немесе теріске шығару үшін авторлар регрессиялық талдау жүргізді, нәтижесінде жалпы білім беретін мектептердегі педагогтер санының көбеюі маңызды міндеттердің бірі болып табылатын инклюзивті білім беруді одан әрі дамыту үшін маңызды және қажетті шарт болып табылады деген қорытынды жасалды.

Қорытынды: Жүргізілген регрессиялық талдау негізінде мақала авторлары жалпы білім беретін мектеп педагогтері санының артуы инклюзивті білім берумен қамтылған балалар санының артуына ықпал етеді деген қорытынды жасады. Зерттеліп отырған проблема бойынша зерттеу талдауы қазіргі кезеңде инклюзивті білім беру жүйесін дамытудағы жетекші үрдіс болып табылатынын көрсетеді. Қазақстанда инклюзивті білім беруді дамыту сапасы зерттеушілерде көптеген сұрақтар туғызады, соның ішінде инклюзивті білім беруде оқытудың инновациялық түрлерін қолданудың тиімсіздігі, халықаралық тәжірибені жеткіліксіз зерттеу және т. б. Сондықтан аталған мән-жайлар Қазақстандағы инклюзивті білім беруді мемлекеттік басқару теориясы, әдіснамасы, ұйымдастыру нысандары мен жүйесін талдауға және оны одан әрі пысықтауға қызығушылық тудырады.

Кілт сөздер: инклюзивті білім беру, білім беру жүйесі, қосу, басқару, мектеп алды білім беру, реттеу, басқару жүйесі, инновациялық білім беру.

М.Б. Турлубекова, Р.О. Бугубаева, Р.С. Беспаева

Инклюзивное образование в Республике Казахстан и факторы его развития

Аннотация

Цель: Цель исследования — изучить систему инклюзивного образования в контексте государственной политики управления.

Методы: В рамках проведенного исследования применялись следующие методы: теоретические, анализ законодательных и нормативных документов по внедрению инклюзивного образования и образования в целом, эмпирические методы, методы качественной обработки данных, методы математической и статистической обработки: ранжирование, корреляция. Была построена эконометрическая модель, которая позволила проверить гипотезу о наличии взаимосвязи между темпами прироста количества детей, охваченных инклюзивным образованием, и темпами прироста численности педагогов общеобразовательных школ. Выводы и результаты исследования были представлены с помощью графического метода предоставления полученных результатов. Использованные методы исследования экономических явлений и обработки первичной информации в своей совокупности позволяют обеспечить достоверность анализа и обоснованность выводов.

Результаты исследования: Авторами была выдвинута гипотеза о наличии связи между темпами прироста количества детей, охваченных инклюзивным образованием, и темпами прироста численности педагогов общеобразовательных школ. Для доказательства либо опровержения этой гипотезы проведен регрессионный анализ.

Выводы: На основе проведенного регрессионного анализа авторами статьи был сделан вывод, что увеличение числа педагогов общеобразовательных школ способствует увеличению количества детей, охваченных инклюзивным образованием. Исследовательский анализ по проблеме показывает, что на современном этапе инклюзия является ведущей тенденцией в развитии системы образования. Качество развития инклюзивного образования в Казахстане вызывает множество вопросов у исследователей, в том числе и неэффективность применения инновационных форм обучения в инклюзивном образовании, а также недостаточная изученность международного опыта и т.д.

Ключевые слова: инклюзивное образование, система образования, инклюзия, управление, дошкольное образование, регулирование, система управления, инновационное образование.

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DOI 10.31489/2021Ec1/125-132
JEL: O10, L10, L68
UDC 330.341.574(25)

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Approaches to the formation of the enterprise development strategy (on the example of furniture production in the Pavlodar region)

Abstract

Object: The article considers new approaches to the formation of the company's development strategy (on the example of furniture production in the Pavlodar region). In particular, the goal of the study is to evaluate the competitive position of the enterprise, based on the use of a spatial model (SPACE model) and the method of expert assessments, taking into account factors of the internal and external environment.

Methods: This research adopts the method of expert assessments, including the quantitative and qualitative research methods with a survey data collection technique. The initial data have been collected by a questionnaire with six point scales, it is used SPACE-model which allows to determine the type of development strategy - the most optimal for the enterprise taking into account the parameters of the external and internal environment of the enterprise.

Findings: The results show that the company under study is characterized by an average attractiveness of the furniture market in the city of Pavlodar, a stable financial position, which is limited by an unstable external environment. In addition, the company according to the study has aggressive competitive position in the furniture sales market, which entails the potential ability to resist competitors.

Conclusion: Based on the results obtained, it is advisable to form and implement a strategy for intensive growth of the studied enterprise, which assumes either a deeper penetration of the enterprise into the existing market with the existing product range or penetration into new markets with the existing range. The authors also recommend the following strategies for intensive growth: 1) the strategy of expanding the market boundaries; 2) the strategy of deep market penetration.

Keywords: strategy, SPACE model, furniture products, competitive position, intensive growth, external environment of the enterprise, internal environment of the enterprise.

Introduction

Currently, it is impossible to imagine the activities of firms without a developed and current strategy. The modern tool of successful development of firms in the sharply changing conditions in the external environment and the associated uncertainty is a purposeful concentration of forces and a correctly chosen strategy, which is the main one for all enterprises, including the production of furniture products (Grant, 2016). Each company is unique in its own way, that is why the process of strategy development for each company is different, as it depends on the position of the company in the market, its development dynamics, its potential, the behavior of competitors, the characteristics of its products or services (Malhotra, 2015). The current pace of changes in the external environment, the increase in knowledge and information flows is so great that the development and implementation of an enterprise development strategy is the only approach to predicting the future problems of the enterprise and its capabilities (Mackay & Zundel, 2016).

The strategy is the Foundation for the long-term development of the enterprise, helps to find the most appropriate ways of action, reduces the risk of making a wrong decision due to distorted or incorrect information about the company's capabilities (internal environment) and its external environment (Leal et al., 2016). When developing a strategy, you need to achieve the greatest certainty, so that the company can anticipate changes in the external environment in time and respond to them instantly.

Literature Review

It should be noted that currently in science there is no single definition of the concept of "enterprise strategy", there are many definitions:

– setting goals and developing appropriate measures to achieve them (Cattani et al., 2017);

– a strategic action plan that identifies priorities, challenges, and resources to achieve the main goal (Nguyen et al., 2018);

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– a system of organizational and economic measures to achieve long-term goals of the enterprise (Hyväri, 2016);

– the General direction of the company's activity, ensuring coordination of the goals, capabilities of the company and the interests of employees (Radomska, 2015);

– research of the future, analysis of possible scenarios of enterprise development (Zhou, 2016);

– a system of ways to manage the company's activity (Král & Králová, 2016).

Based on the above well-known definitions, we define the "enterprise strategy" as follows. According to authors' opinion, "enterprise strategy is a system of management influence on economic and organizational relations of the enterprise workforce, aimed at achieving business objectives and ensuring effective functioning and development of enterprises in the short and long term".

To date, the formation of the company's development strategy is based mainly on the choice of several alternative strategies. Each of the options is based on standard solutions for widespread situations. The most profound question of methods for forming an enterprise strategy has been studied by scientists from the Harvard school: M. Porter (1997), K. Andrews (1971), K. Prahalad & G. Hamel (1990), which is still considered a leader in this direction.

Developed by Kenneth Andrews, SWOT analysis involves developing a strategy based on assessing the impact on the enterprise of such factors as: the company's opportunities (opportunities), threats to the company (threats), strengths (strengths), weaknesses (weaknesses). At the same time, Michael Porter evaluated the process of forming the company's strategy in terms of its competitive position, based on an analysis of the five forces of competition, which gives an idea of the company's strengths and weaknesses in the market.

With all the ways of forming of enterprise strategy based on an analysis of internal and external environment of the organization, as the organization's capabilities and market circumstances in which there is a company, determines the probable ways of its formation (Arrogah, 2018). It is also necessary to take into account that time, people and information are equally important resources of the chosen strategy in modern realities (Mao et al., 2017). Time is now being added to people as the main resource of companies. Only by working ahead of the competition, the company is able to implement a strategy for increasing its stability in a market where there are fewer and fewer free niches (Peres & Fogliatto, 2018).

Methods

Approaches to the formation of the enterprise development strategy involves the determination of the methods of formation of the strategy and the results of their use. The authors used the method of SPACE model (SPACE - Strategic Position and Action Evaluation model - strategic assessment of positions and actions) to form the strategy for the development of the enterprise (on the example "Alshynbay" LLP, which operates in the field of furniture production). This method allows to choose the key growth factors, to determine the type of development strategy, which is the most optimal for the enterprise taking into account the parameters of the external and internal environment of the enterprise.

At the same time, this model allows to more accurately determine the competitive strategy of the enterprise, since it is based on the factors of analysis of internal and external environment *[Studenova A. Strategic management at the enterprise. – M.: Finance and statistics, 2008, p. 318]*.

Each group of factors of analysis of internal and external environment is determined in a point assessment, on the basis of which a graph is constructed that characterizes the strategic position of the enterprise under study.

The company is assigned one of 4 strategic positions: aggressive, competitive, conservative, and defensive, depending on the results shown on the resulting graph.

The overall assessment of the company's strategic position in the industry market is represented by four key indicators of the company's performance:

– the financial position of the enterprise - estimated from 0 to six 6 (0 - weak financial position, 6 - strong);

– the attractiveness of this market - estimated from 0 to 6 points (0 - the industry is unattractive, 6 - attractive);

– competitive advantage - it is evaluated from 0 to 6 points (0 - small competitive advantage, 6 - large) and then converted to negative value by subtracting 6 points from the obtained positive value;

– stability of external environment - evaluated from 0 to 6 points (0 - the environment is unstable, 6 - stable) and then converted to a negative value by subtracting 6 points from the obtained positive value.

To assess the strategic position in the work, the method of expert assessments is also used, including the quantitative and qualitative research methods with a survey data collection technique. The initial data have been collected by a questionnaire with six point scales. All received indicators at the enterprise “Alshynbay” LLP are formulated on the basis of personal judgments and opinions of specialists of an economic profile (186 respondents).

Results

In Pavlodar region, the market of furniture products is highly concentrated due to a significant number of competitors. To determine the development strategy of enterprise (on the example of “Alshynbay” LLP), it is necessary, on the basis of statistical data, to analyze the dynamics of furniture production for 2017-2019, the results of which are reflected in Table 1.

Table 1. Analysis of the dynamics of the production of furniture products in the Pavlodar region for 2017-2019

Indicators	years			2019 to 2017/2018, percent	
	2017	2018	2019	2017	2018
Physical volume index of furniture products,%	111,4	148,9	79,1	64,7	53,1
Production of cabinet furniture, million tenge	348	1008	727	208,9	72,1
- production of commercial equipment, thousand pieces	42	37	41	97,6	110,8
- production of interior items, thousand pieces	27	37	27	100,0	73,0
- production of office furniture, thousand pieces	25	38	21	84,0	55,3
The number of enterprises operating in the furniture industry, units	67	61	52	77,6	85,2
Note - Compiled by the author based on data of Ministry of Education and Science of the Republic of Kazakhstan and the Bureau of National Statistics					

These tables allow us to conclude that there is a tendency for a significant decrease in the production of furniture products in the Pavlodar region in the period 2017-2019. In 2019, the volume of production of furniture products amounted to: by 2017 -117, 2 percent; by 2018 - 78.4 percent.

Based on the data obtained as a result of the analysis, it is necessary to assess the competitive advantage, the attractiveness of the furniture market and the stability of the external environment in this area in the Pavlodar region.

1) Analysis of the competitive advantage of the furniture factory “Alshynbai” LLP.

During the period 2017-2019, the client base of “Alshynbay” LLP has been steadily expanding, however, there is a decrease in the rate of growth in sales.

It is necessary to calculate the index of penetration of “Alshynbay” LLP into the furniture sales market in Pavlodar region and the consumer confidence coefficient [2, p. 176]

The dynamics of changes in the “Alshynbai” LLP market segment is presented in Table 2.

Table 2. Dynamics of changes in the market segment of “Alshynbay” LLP

Index	2017	2018	2019	Plan
Number of potential clients	1465	1856	1958	2100
Number of attracted clients	856	901	933	960
Number of proposed furniture items,	90	98	102	115
Market penetration index,%	58,4	48,5	47,7	45,7
Consumer confidence coefficient,%	10,5	10,9	10,9	12,0
Note - Compiled by the author based on the method of expert assessments				

Based on the data obtained, it can be concluded that, despite the positive dynamics of attracting new customers, the penetration rate on the sales market of furniture products of Alshynbay LLP is gradually decreasing, which is associated with high competition and is reflected in a decrease in the growth rate of the company's market share. However, a positive fact is the growing coefficient of customer confidence in “Alshynbay” LLP. Table 3 shows the indicators of the competitive advantage of “Alshynbay” LLP, formulated on the basis of personal judgments and opinions of specialists of an economic profile.

Table 3. Indicators of the competitive advantage of "Alshynbai" LLP

Index	Quantitative assessment (0-6)	Qualitative assessment
Market share	4	below average
Implementation of strategic goals	2	below average
Distinctive features of products	4	essential
Consumer loyalty (trust)	5	high
Attraction dynamics	3	medium
The average	3,6	
Vector	average -6 = 3,6 – 6 = -2,4	
Note - Compiled by the author based on the method of expert assessments		

Based on the results of Table 3, the average score for the quantitative assessment of competitive advantage was calculated, equal to 2.4. Since the competitive advantage axis is negative on the competitive position graph, it is necessary to calculate the indicator that will be plotted along the axis as the difference between the average and maximum score equal to 6.

2) Analysis of indicators of stability of the external environment.

Manufacturers of furniture products in the city of Pavlodar are: "Kazakhstan" LLP, "Imperial" LLP, a number of other enterprises. To assess the competitive environment, it is advisable to single out enterprises operating in the same market segment and producing similar assortment positions of furniture products. It should be noted that the furniture of these manufacturers is furniture made of laminated chipboard; there are practically no samples of furniture made of solid-cut parts of pure wood. The price of an "average" set of furniture made of this material at the prices of the above-mentioned manufacturers is no more than 125 thousand tenge.

Furniture produced by the "Alshynbai" LLP factory is competitive and differs significantly in cost.

Table 4 shows a point analysis of the competitive environment of the furniture market in the city of Pavlodar on a five-point scale.

Table 4. Analysis of the competitive environment of the furniture market in the city of Pavlodar

Comparison parameter	"Alshynbay" LLP	"Kazakhstan" LLP	"Imperial" LLP
Environmental Safety	4	3	3
Strength	4	3	3
Price	2	4	4
Aesthetic properties	3	4	3
Accompanying services	4	2	4
Total	17	16	17
Note - Compiled by the author based on the method of expert assessments			

The comparison shows that the furniture "Alshynbai" LLP occupies an average competitive position. Table 4 shows the results of the analysis of the competitive environment of the furniture market in the city of Pavlodar. The main segment of end consumers of "Alshynbay" LLP products are families with an average income.

Table 5 presents an assessment of indicators of the stability of the external environment. The assessment is also made on a 6-point scale. According to the table, the average indicator of environmental stability is calculated, which decreases by 6 points, since the stability axis on the competitive position graph is negative.

Table 5. Indicators of stability of the external environment of "Alshynbai" LLP

Index	Quantitative assessment (0-6)	Qualitative assessment
Demand	4	exists
Inflation rate	3	high
The spread of prices of competing enterprises	5	weighty
Competitive pressure	4	above average
The average	4	
Vector	average – 6 = 6 – 4 = -2	
Note - Compiled by the author based on the method of expert assessments		

3) Analysis of indicators of attractiveness of the furniture sales market in the city of Pavlodar.

Table 6 presents an assessment of indicators of the attractiveness of the furniture sales market in Pavlodar.

Table 6. Indicators of attractiveness of the furniture sales market

Index	Quantitative assessment (0-6)	Qualitative assessment
Growth rate	5	low
Potential profitability	5	medium
Concentration of competitors	5	high
The average	5	
Note - Compiled by the author based on the method of expert assessments		

4) financial position of the company-covers all aspects of the company's activity, including optimization of fixed and working capital, profit distribution, tax and pricing policy, etc. Based on the results of the analysis, average score of 4.3 was calculated for quantifying the financial position of "Alshynbai" LLP enterprise. Based on the analysis of tables 2-6, it is possible to build a graph characterizing the competitive position of "Alshynbai" LLP in the furniture sales market (figure 1).

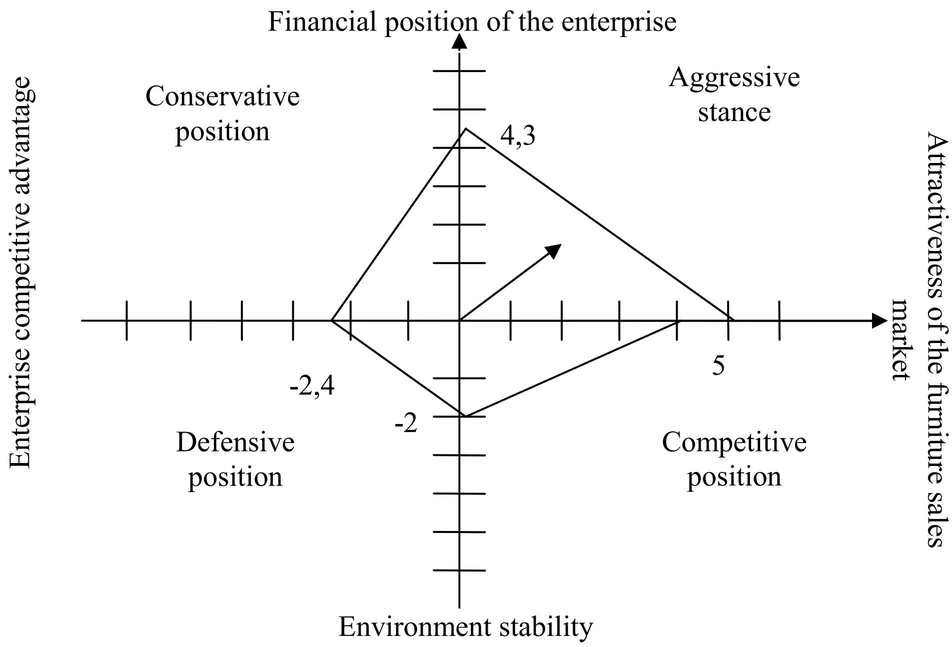

Figure 1. Competitive position of the furniture factory "Alshynbai" LLP

Note - Authors' own

On each of the axes, respectively, the average values of the calculated indicators are plotted, and a quadrangle is constructed, characterizing the competitive position of "Alshynbai" LLP.

Thus, the furniture "Alshynbay" LLP is positioned on the right side of the graph, and almost symmetrically in the right quadrants. This situation is characterized by the average attractiveness of the furniture sales market in the city of Pavlodar, the stable financial position of "Alshynbay" LLP, which is limited by the unstable external environment. The position in the upper right quadrant indicates the aggressive competitive position of "Alshynbai" LLP in the furniture sales market, which entails the potential ability to withstand competitors.

Discussion

The results show that the company under study is characterized by an average attractiveness of the furniture market in the city of Pavlodar, a stable financial position, which is limited by an unstable external environment. In addition, the company according to the study has aggressive competitive position in the furniture sales market, which entails the potential ability to resist competitors.

For the aggressive competitive position of the enterprise, to which, as the analysis has shown, the competitive position of “Alshynbai” LLP. Accordingly, authors recommend the following strategies of intensive growth:

To strengthen the intensive growth of the competitive position of the enterprise “Alshynbai” LLP, the following strategies of intensive growth are recommended:

1) the strategy of expanding the boundaries of the market.

2) strategy of deep penetration into the market.

The choice of the optimal strategy related to the strategies of intensive growth will allow the management of “Alshynbai” LLP to manage efficiently the development of the enterprise in the long term.

Thus, based on the results of the analysis conducted using the SPACE model, we can conclude that it is advisable to form and implement an intensive growth strategy, which involves the following ways: 1) deeper penetration into the existing market with the existing product range; 2) penetration into new markets with the existing range.

In general, the efficiency of the company depends on the following factors of internal and external environment: the enterprise’s financial position, attractiveness of this market segment, the availability of competitive advantages and sustainability of external environment of the enterprise.

Conclusions

Each enterprise is a complex multifunctional system, so the functional strategy of the enterprise can be considered a General strategy that reflects specific ways to achieve specific goals of the enterprise and its development. In this regard, the following areas can be developed:

– functional area;
– marketing direction;
– production and direction;
– personnel management;
– innovative direction;
– financial direction.

Knowing all possible development alternatives allows the company to move on to choosing a strategic path that will maximize the long-term effectiveness of the organization (Iazzolino & Laise, 2016).

The set of directions of the functional strategy at a particular enterprise is determined by the composition of specific goals that the enterprise sets for itself (Soosay et al., 2016). The selected direction is only qualitative recommendations for further development of the enterprise “Alshynbai” LLP. Finally, the company’s strategy is approved in the strategic plan after calculating economic forecasts and possible options for the company's development. Factors concerning the correctness of the choice functional strategies are consistent goals that will contribute to the realization of the development strategy of the enterprise, as well as external and internal factors showing that the enterprise has no substantial obstacles in achieving your goals, and most factors will contribute to the implementation of the chosen strategy and directions of its development.

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Кәсіпорынның даму стратегиясын қалыптастыру тәсілдері (Павлодар облысында жиһаз өнімдерін өндіру мысалында)

Аңдатпа

Мақсаты: Мақалада кәсіпорынның даму стратегиясын қалыптастырудың жаңа тәсілдері қарастырылды (Павлодар облысында жиһаз өнімдерін өндіру мысалында). Атап айтқанда, зерттеудің мақсаты кеңістіктік модельді (SPACE модельді) және ішкі және сыртқы орта факторларын ескере отырып, сараптамалық бағалау әдісін пайдалануға негізделген кәсіпорынның бәсекелестік ұстанымдарын бағалау болып табылады.

Әдісі: Зерттеуде бастапқы деректерді алу барысында сауалнама негізіндегі сандық және сапалық зерттеу әдістерін қамтитын сараптамалық бағалау әдісі қолданылған. Бастапқы мәліметтер алты балдық шкаласын қолдана отырып, алдын ала бекітілген сұрақтардан құрастырылған сауалнама көмегімен жиналды, сыртқы орта параметрлері мен ішкі орта жағдайын ескере отырып, кәсіпорын үшін ең оңтайлы — даму стратегиясының түрін анықтауға мүмкіндік беретін SPACE моделі пайдаланылған.

Қорытынды: Жұмыс нәтижелері зерттелетін кәсіпорынның Павлодар қаласындағы жиһаз өткізу нарығының орташа тартымдылығымен, тұрақсыз сыртқы ортамен шектелген тұрақты қаржылық жағдаймен сипатталатынын көрсетеді. Сонымен қатар, зерттелетін кәсіпорын жиһаз сату нарығында агрессивті бәсекеге қабілетті позицияға ие, бұл бәсекелестерге қарсы тұрудың ықтимал қабілетін тудырады.

Тұжырымдама: Алынған нәтижелерге сүйене отырып, кәсіпорынның қолданыстағы нарыққа неғұрлым терең енуін немесе қолданыстағы ассортименті бар жаңа нарықтарға енуін көздейтін зерттелген кәсіпорынның қарқынды өсу стратегиясын қалыптастыру және іске асыру ұсынылған. Авторлар сондай-ақ қарқынды өсудің мынадай стратегияларын ұсынды: 1) нарық шекарасын кеңейту стратегиясы; 2) нарыққа терең ену стратегиясы.

***Кілт сөздер**:* стратегия, SPACE моделі, жиһаз өнімі, бәсекелік ұстаным, қарқынды өсу, кәсіпорынның сыртқы ортасы, кәсіпорынның ішкі ортасы.

Д.Ж. Турсынханов, С.Ж. Нургалиева, Д.С. Бекниязова

Подходы к формированию стратегии развития предприятия (на примере производства мебельной продукции в Павлодарской области)

Аннотация

Цель: В статье рассмотрены новые подходы к формированию стратегии развития предприятия (на примере производства мебельной продукции в Павлодарской области). В частности, целью исследования является определение конкурентных позиций предприятия, основывающееся на использовании пространственной модели (модель SPACE) и метода экспертных оценок с учетом факторов внутренней и внешней среды.

Методы: В работе использован метод экспертных оценок, включающий количественные и качественные методы исследования с применением анкетирования в качестве сбора первичных данных. Исходные данные были собраны с помощью анкеты, содержащей фиксированные вопросы с использованием шестибалльной шкалы, применена модель SPACE, позволяющая определить тип стратегии развития — наиболее оптимальный для предприятия с учетом параметров внешней среды и состояния внутренней среды.

Результаты: Результаты работы показывают, что исследуемое предприятие характеризуется средней привлекательностью рынка сбыта мебели в городе Павлодаре, стабильным финансовым положением, которое ограничено нестабильной внешней средой. Кроме того, исследуемое предприятие имеет агрессивную конкурентную позицию на рынке продаж мебели, что влечет за собой потенциальную способность противостоять конкурентам.

Выводы: На основании полученных результатов целесообразны формирование и реализация стратегии интенсивного роста исследуемого предприятия, предполагающей либо более глубокое проникновение предприятия на существующий рынок с существующим ассортиментом продукции, либо проникновение на новые рынки с существующим ассортиментом. Авторами также рекомендованы следующие стратегии интенсивного роста: расширения границ рынка и глубокого проникновения на рынок.

Ключевые слова: стратегия, модель SPACE, мебельная продукция, конкурентная позиция, интенсивный рост, внешняя среда предприятия, внутренняя среда предприятия.

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DOI 10.31489/2021Ec1/133-142
JEL: B52
UDC 33.338.2

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Land tax as the main element of the economic mechanism for efficient land management

Annotation

Object: To review the impact of land tax on the efficiency of agricultural development. To review the procedure for calculating land tax in Kazakhstan. To study the features of land tax collection. To consider improving the taxation of agricultural land resources.

Methods: During the course of the study, we used statistical data analysis and methods of comparative analysis.

Findings: This paper reviews the aspects of agricultural land plots taxation. We have analyzed a number of factors affecting the effective taxation of land resources in Kazakhstan. We have performed a comparative analysis of land taxation in the EAEU countries. We have identified key components affecting land taxation and the main parameters of their functional efficiency.

Conclusions: This paper analyzes the current state of land taxation. We have developed proposals for the development of land taxation and improvement based on cadastral valuation. The results of the study allow us to conclude which of these aspects affect the effective land management.

Keywords: Base rate, special tax regime, land tax, single land tax, object of taxation, land plot, tax rate, tax benefits, soil quality score, cadastral value.

Introduction

Effective incentives for land taxation should form the basis for the development of land relations in Kazakhstan and increasing the competitiveness of its economy. To a great extent, the system of land taxation is merely fiscal in nature and does not encourage the efficient management of land resources; there are no benefits for agricultural land users, depending on how efficiently they manage land resources.

Kazakhstan's experience on the introduction of land tax has shown that the tax legislation has a number of weaknesses to it, while the land tax itself, in its current form, no longer corresponds to economic realities. Taxation of land resources requires Kazakhstan to improve the efficiency of their use. Currently, land quality steadily tends to deteriorate, the content of humus, nutrients, vegetation species composition and its productivity decreases, which reduces the potential of agricultural production, while there is no significant improvement in this issue due to the lack of financing.

At the same time, the study of land taxation and the development of proposals for regulating this phenomenon in Kazakhstan features characteristics of most countries at the formation stage.

Literature review

In the course of the research, we have analyzed scientific papers on land taxation by Russian and foreign scientists: Mashael M., Weith T., Barkmann T., Gaasch N., Rogga S, Strauß C., Zscheischler J. Ivanov N. etc.

Local authors studying land taxation and carrying out research: M.Kh. Zhanbusinova, G.A. Mayrimova, Zh.T. Seyfullin, R. Dithard, A. Musayeva, R. Karenov, A. Aoulov, R. Andarova, T. Ischuk, etc., as well as statistics published in local and foreign periodicals.

Results

The significance of the land tax for agricultural production is related to the use of land as the main means of production, in contrast to other industries, for which land is the space where economic activity takes place. (Mashael, M. (2020)

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Tax policy takes one of the leading places in state regulation of effective land management. Land, the main wealth of any state, is of particular importance in the conditions of the Republic of Kazakhstan.

Nowadays, agricultural producers hold agricultural land leases with the state for a period of 49 years. These leases can be extended after the initial period expiration. In this way, with legally established state ownership of agricultural land, the lessee becomes an actual owner (Shurr A. 2018). 111

1. One of the features of a land value tax in Kazakhstan is the availability of special tax regime for farm households on the basis of payment of the single land tax, where the product is the cultivation and production of agricultural products, the presence of land plots in private property rights and (or) land use. The purpose of the land tax is to provide economic methods for the rational land management and generation of budget revenues for the implementation of measures for land management, increasing the fertility of land, their protection, and for the socio-cultural development of the territory. Land Code of the Republic of Kazakhstan 2003).

Land tax payers are individuals and legal entities having objects of taxation:

2. On the right of ownership;

3. On the right of permanent land use;

4. On the right of primary gratuitous temporary land use (Land Code of the Republic of Kazakhstan 2003).

Land fees are charged in three forms: Land tax, rent, and standard land price. Let us take a closer look at the land tax. Annual land tax is levied on landowners, landholders and land users, except for tenants. This tax is applied to agricultural land based on its composition, quality, and location. Land taxation in Kazakhstan is currently carried out in accordance with the Code of the Republic of Kazakhstan "On taxes and other mandatory payments to the budget" in the form of annual fixed payments per unit of land area.

Next, let us compare the land tax legislation in the EAEU member states. The Republic of Armenia, the Republic of Belarus, and the Republic of Kazakhstan have a two-level tax system (republican and local levels); the Kyrgyz Republic and the Russian Federation have a three-level tax system (state-federal, regional, and local levels).

Table 1. System of taxation of agricultural producers in the EAEU member states

Taxation system	The Republic of Armenia	The Republic of Belarus	The Republic of Kazakhstan	The Kyrgyz Republic	The Russian Federation
Special tax treatment	Land tax	Single tax for producers of agricultural products	Single land tax	Land tax	Unified agricultural tax
Tax base	Land area multiplied by its estimated value	Monetary expression of gross revenue from sales (works and services) and non-operating income	Land area multiplied by its estimated value	Land area multiplied by the land tax rate	Monetary expression of the incomes, reduced by size of expenses
Tax rate	0	1,0%	No more than 0,5 %	0	6,0%

Note: (Analysis of the current regulatory systems of the agri-food market in the EAEU member states in terms of taxation, lending, insurance, price regulation and the licensing system. 2015)

Tax legislation states the taxation principles for agricultural producers of the Parties have a common basis, i.e. the level of tax burden for this category of economic entities is significantly lower than under the generally established regime (agricultural producers receive a special preferential tax system). At the same time, the Parties have different basic tax rates. Since January 1st, 2012, the Republic of Belarus has been seeing a reduction in the income tax rate. Previously, the income tax rate was 24%, which is 6% more than the current one.

Thus, the Kyrgyz Republic has the lowest rate of 10%, and since 2013, the profit rate in the Republic of Belarus has been 18% compared to the Russian Federation and 20% to the Republic of Kazakhstan.

Along with the special tax regime, Kazakhstan has a regime that exempts farms and individual farmers from all types of taxes, replacing them with a single land tax, the calculation base for which is the land plot area multiplied by estimated value. Tax rates under this regime never exceed 0.5%. Land tax calculation is based on the land plot area multiplied by the estimated value. Thus, of the above-mentioned mechanisms for paying a Single tax, the one used in the Republic of Kazakhstan within the framework of the Single land tax appears to be the most profitable and easy to use.

The positive side of this mechanism is that it offers simple financial reporting, unlike the tax mechanism. In the Republic of Kazakhstan, agricultural land is subject to land tax. They are charged only land tax, which is set as a percentage of the cadastral value of land owned and/or used. No other tax applies. (Analysis of the current regulatory systems of the agri-food market in the EAEU member states in terms of taxation, lending, insurance, price regulation and the licensing system. 2015).

Basic land tax rates for agricultural land, industrial land, and other non-agricultural land located outside of built-up areas, as well as some other categories, are set per hectare and differentiated based on natural soil fertility expressed in bonitet points. (Consolidated analytical report on the state and use of land in the Republic of Kazakhstan for 2018).

Farms and agricultural holdings in Kazakhstan have a progressive tax rate ranging from 0.15% to 0.6% depending on the land plot area. (Andarova R.K. 2016).

Basic land tax rates for built-up areas are set per square meter of area depending on the area category.

A simplified system in the form of a single land tax can be applied for farms and agricultural holdings, that is calculated depending on the cadastral (estimated) value of agricultural land (0.1%). (Consolidated analytical report on the state and use of land in the Republic of Kazakhstan for 2018).

The Land code of the Republic of Kazakhstan provides the following definition: "Agricultural land is recognized as land provided for the needs of agriculture or intended for these purposes. Agricultural land includes agricultural areas and land occupied by on-farm roads, communications, closed reservoirs, land reclamation network, buildings and structures necessary for the functioning of agriculture, and other land. (Land Code of the Republic of Kazakhstan 2003).

As is evident, agricultural land is recognized as land provided for the needs of agriculture or intended for these purposes. This definition shows that the category of agricultural land is represented by two types:

– Land provided for agriculture needs;

– Land intended for these purposes, i.e., those that can be used for the production of agricultural products in terms of their quality.

According to Professor M.D. Spektor, agricultural land provided for agricultural purposes occupies a special position in the unified land fund of the country. A peculiarity here is that they determine the volume of food and raw materials produced for industry. Any reduction in this category of land leads to a decrease in agricultural products. (Spektor M.D. 2016).

The total agricultural land area in Kazakhstan in 2017 was 177.8 million hectares, including 146.9 million hectares of pasture fields, 26.7 million hectares of arable lands and fallows, and 4.2 million hectares of hayfields.

One of the agricultural land issues is that all regions of the Republic show a steady trend of land quality deterioration, a decrease in the content of humus, nutrients, vegetation species composition and its productivity, which reduces the potential of agricultural production. (State program for the development of the agro-industrial complex of the Republic of Kazakhstan for 2017-2021. 2017).

As one of the benchmarks, the previous industry program "Agribusiness-2020" has set an increase of grain yields to 14 c/ha in 2020 and to 20 c/ha in 2030. These kinds of goals are quite achievable if domestic farmers are provided with affordable financing tools to purchase the necessary agricultural equipment, high quality fertilizers and increase crop rotation to reduce land degradation. (Karenov R. 2015).

We feel important to note that according to the UN, as a result of environmental degradation processes, 7-10 million hectares of arable land are irretrievably lost annually in the world, which is the basis of life for 21-30 million people (with the current norm of 0.3 hectares per person). The problem of soil depletion is relevant for developing countries, where the share of medium and highly depleted soils is usually around 20-30% (including 30% in China, and 20% in India). (Ayulov A. 2016).

The basic tax rates on agricultural land (except for land provided to citizens for personal subsidiary farming of dacha construction) are set per hectare and are differentiated by the quality of the soil expressed by bonitet points considering natural and economic zoning. (Land Code of the Republic of Kazakhstan. 2003).

Fixed rates of land tax per 0.01 ha apply for land provided to citizens for personal subsidiary farming, dacha construction, and gardening.

Basic tax rates for the built-up area lands are calculated per 1 sq. m of area depending on the cost of territory development, built-up area status, and the purpose of taxable land plots.

For industrial, transport, communications, defense, and other non-agricultural land, base rates are set per 1 ha of land area depending on the cost of developing new land of similar quality, instead of being withdrawn from agricultural turnover.

Basic tax rates on agricultural land are set per 1 ha and are differentiated by the quality of the soil, in proportion to the bonitet points. A bonitet point is a conditional unit that expresses cadastral valuation of a land plot.

At the same time, data from the zoning scheme for agricultural territories based on natural and other conditions are taken into account as well. This includes landscape features, location, reclamation status, water availability, etc. (Seifullin Zh.T. 2018).

Another feature of setting tax rates in the Republic of Kazakhstan is that they depend on the bonitet point, i.e., on the level of economic value of the land plot, thereby determining the market component when calculating the final amount of land tax.

Feature of a land value tax in Kazakhstan is that special tax regime for farms or agricultural holdings can be applied on the basis of the single land tax, which applies to the activities of farms or agricultural holdings for the production of agricultural products (except excisable), in the presence on the territory of Kazakhstan of land plots on private and (or) land use rights. (Kolosov N. 2018).

Rather high are costs associated with a high share of arrears on property taxes and land tax from individuals and, accordingly, with the need for compulsory collection of these taxes. (Ischuk T. 2018). 13

In accordance with the tax legislation of the Republic of Kazakhstan, different land use tax rates apply for each category of farms.

For agricultural enterprises, basic rates on agricultural land are set per hectare and are differentiated by the quality of the soil. For the steppe and dry-steppe zone lands, basic rates of land tax are set from 0.48 to 202.65 tenge in proportion to the bonitet points. For the semi-desert, desert and foothill-desert zone lands, basic rates are set from 0.48 to 50.18 tenge in proportion to the bonitet points.

Basic tax rates for agricultural land provided to individuals for personal household (subsidiary) farming, gardening and dacha construction, including land for construction, are set in the following amounts:

1. 20 tenge per 0.01 hectares for areas up to 0.50 hectares;
2. 100 tenge per 0.01 hectare for areas over 0,50 hectares.

Farms or agricultural holdings are entitled to independently choose one of the following tax regimes:

1. A special tax regime for farms or agricultural holdings;
2. A special tax regime for subjects of small business;
3. A generally established procedure.

The object of taxation for the calculation of a single land tax is the estimated value of a land plot set on the basis of the act of determining the estimated value of land plots issued by the authorized state body for land management.

Calculation of the single land tax by farms and agricultural holdings on arable land is made by applying progressive rates of 0.1% to 0.5% based on the total land plot areas to their total estimated value.

Table 2. Basic land tax rates in proportion to bonitet points in the Republic of Kazakhstan

Bonitet points	Tax rate, tenge
1-10	0.48-2.41
11-20	2.89-4.82
21-30	5.31-9.65
31-40	14.47-24.12
41-50	28.95-38.60
51-60	43.42-53.07
61-70	57.90-82.02
71-80	86.85-110.97
81-90	115.80-144.75
91-100	149.57-193.00
Over 100	202.65
Note: (Seifullin Zh. 2018)	

Non-agricultural land that is part of built-up areas, industry, specially protected natural areas, forest and water resources and is used for agricultural purposes is also taxed at the basic rates of agricultural use. In this case, calculating the tax is based not on category or location of the land plot, but the peculiarity of the scope of its specific functional and target application: the agriculture. (Seifullin Zh. 2018).

Calculation of the unified land tax on pastures, natural hayfields and other land plots used in activities covered by the special tax regime is carried out by applying the rate of 0.2% to the total estimated value of land plots.

Table 3. Calculation of the unified land tax on arable land based on the total area of land plots to the total estimated value of land plots

No.	Land area, ha	Tax rate
1	Below 500	0.15%
2	501 to 1,000	0.15% of the estimated value from 500 hectares + 0.3% of the estimated value from hectares over 500 hectares
3	1,001 to 1,500	0.3% of the estimated value from 1,000 hectares + 0.45% of the estimated value from hectares over 1,000 hectares
4	1,501 to 3,000	0.45% of the estimated value from 1,500 hectares + 0.6% of the estimated value from hectares over 1,500 hectares
5	Over 3,000	0.6% of the estimated value from 3,000 hectares + 0.75% of the estimated value from hectares over 3,000 hectares
Note: (Seifullin Zh.T. 2018)		

Using proposals of local executive bodies, local representative bodies have the right to increase the rates of the unified land tax, however, no more than ten times on agricultural land not used in accordance with the Land Code of the Republic of Kazakhstan.

Thus, calculation of the single land tax for 2017 is determined as follows:

– For arable lands, by applying the rates (set out in the table above) based on the total area of land plots to the total estimated value of land plots;

– For pastures, by applying a rate of 0.2% to the total estimated value of such pastures.

However, when calculating the single land tax, it is necessary to take into account the adjustment of rates established by local representative bodies.

Let us consider the characteristic features of the availability of agricultural land in various forms of legal entities in Kazakhstan. Agricultural enterprises (large farms): on average, land area can vary from 5 to 20,000 hectares. There are farms with 500,000 to 1 million hectares of land.

Farms (small and medium-sized farms): peasant farms in southern and northern regions differ markedly from each other in the size of the cultivated land area. On average, one farm's land area in the southern regions can vary from 3 to 500 hectares; in the northern regions from 50 to 10 thousand hectares or more. Farms of the rural population (small farms): usually, a private plot/vegetable garden with a size of 0.10 to 0.5 ha. (Dithard R. 2019).

According to the data presented on the website of the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan, in general, there is an increase in budget revenues from land tax over the years. Nationwide, the receipt was 14,935.1 million tenge in 2015, 15,255.1 million tenge in 2016, 15,353.3 million tenge in 2017, and for 10 months of 2018 it amounted to 14,801.5 million tenge.

The largest tax revenues for land use by region were recorded in the city of Almaty (2,820.1 million tenge) and the Karaganda region (2,073.0 million tenge).

Table 4. Land tax receipts by regions for 2014–2018, million tenge

Regions	2014	2015	2016	2017	2018	Deviation 2018/2014, %
1	2	3	4	5	6	7
Akmola	487.6	392.0	283.7	283.7	434.9	−9.7
Aktobe	659.1	595.8	518.3	324.5	480.5	−27.1
Almaty	794.7	773.7	829.5	520.6	831.6	+4.6
Atyrau	455.1	481.6	499.9	403.1	476.5	+4.7
East Kazakhstan	1,401.9	1,350.4	1,364.1	1,145.5	1,183.1	−15.6
Zhambyl	365.1	354.8	361.2	248.4	347.5	−4.8
West Kazakhstan	231.9	182.0	180.4	128.7	200.3	−13.6
Karaganda	2,660.1	2,475.2	2,475.0	1,914.6	2,073.0	−22.1
Kyzylorda	270.3	273.1	290.3	239.5	296.4	+9.6
Kostanay	477.6	612.7	377.3	268.6	474.7	−0.6

1	2	3	4	5	6	7
Mangistau	536.3	570.6	489.7	428.2	431.6	−19.5
Pavlodar	1,895.0	1,885.9	1,776.4	1,365.9	1,607.8	−15.1
North Kazakhstan	402.3	288.9	262.1	206.6	386.6	−3.9
Turkestan	1,004.1	948.9	1,132.8	800.1	1,606.0	+60
City of Almaty	2,247.5	2,540.4	3,032.6	2,318.6	2,820.1	+25.4
City of Astana	1,287.8	1,209.1	1,247.5	1,362.6	1,150.9	−10.6
Total	15,176.4	14,935.1	15,255.1	11,959.1	14,801.5	−2.4
Note: (http://www.minfin.gov.kz)						

When considering land tax revenues by region, the largest decrease by 27.1% was noted in the Aktobe region. An increase in the tax was recorded in the Turkestan region. This increase was due to combining data with the former South Kazakhstan region. The second position of land tax increase was noted in the city of Almaty. This is associated with increased business activity in this region.

The low share of tax revenues to the budget from agricultural activities in some regions indicates a low tax base, which was caused by the unprofitability of many farms, or low profitability of production in them, which exacerbates the inability to fully utilize the resource potential. Short-term loans with high interest rates allow only current expenses to be realized, while implementation of expanded reproduction of land resources requires long-term funding.

To date, no changes have been made to the Tax Code of the Republic of Kazakhstan on the basic rates of payment for 1 ha (for agricultural land) and 1 m² (for the built-up area land), which have not been changed for more than 10 years.

In the course of the ongoing reforms, the established peasant farms, their associations and cooperatives have significantly changed the structure of agricultural production. They produce half as much as individual farms. To date, households produce more than 50% of the gross agricultural output and the volume of their production increases annually (Table 1).

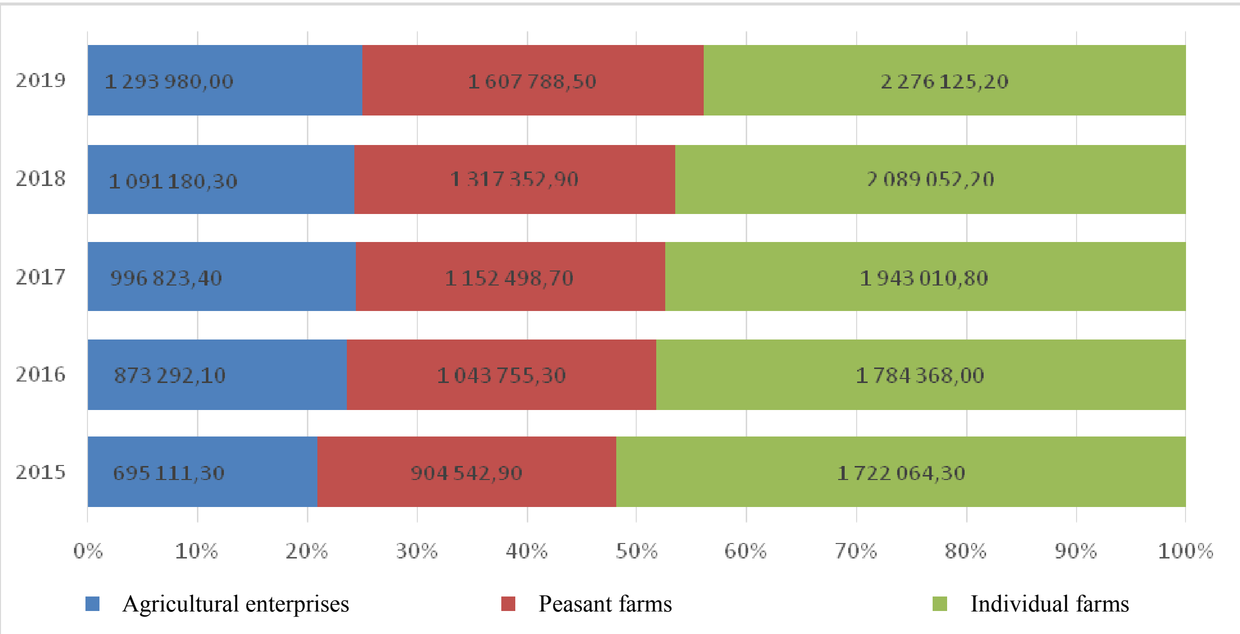

Fig. 1. Gross output of agricultural products (services), million tenge

Note: Compiled based on (https://stat.gov.kz, 2019)

Figure 1 shows that in 2015, peasant farms produced agricultural products for 904,542.90 million tenge, and households for 695,111.30 million tenge. Production volume at agricultural enterprises tends to increase.

In turn, we would like to note the problems as well. According to preliminary data of the Ministry of Agriculture of the Republic of Kazakhstan, the volume of gross agricultural output for 2019 increased by 0.9% compared to 2018 and amounted to 5,239.9 billion tenge. At the same time, production of livestock products increased by 4%, and production of crop products decreased by 1.7%. Specific problems of crop production are as follows: irrational use of arable land, fertilizing resources availability issues, insufficient number of granaries, deterioration of the phytosanitary situation, water supply and land condition issues. (Information and analytical review for the parliamentary hearings on the topic: "Issues of the development of the agro-industrial complex" in Nur-Sultan. 2020).

Currently, there are six types of tax regimes in agriculture. For peasant farms, there is a special tax regime based on a single land tax that is calculated taking into account the estimated value of the land plot. For agricultural producers, there is a special regime or 1-3% of sales depending on the enterprise form.

To improve the land taxation system, we propose to apply the coefficient to the cadastral value. We believe that changing the existing system of land taxation based on transitioning to calculating land tax depending on the cadastral value of land plots will meet the market requirements and encourage land users to rationally and efficiently use land resources and replenish the state budget. (Janbusinova M. 2015).

Local authorities are not sufficiently aware of the land owners, land plot areas, so it is difficult to determine the object of taxation and taxpayers. One of the reasons for this is the shared ownership of individuals, where determination of their respective shares appears difficult. Subsequently, cadastral registration and assessment for these lands appears just as difficult. Land tax performs an important function of replenishing the local budget.

Cadastral valuation is necessary for the formation of the tax base for land tax, while market price is necessary for its owner. Market price is an integral category, without which the land market cannot exist. A collateral price is necessary for the pledge of land as a guarantee for obtaining a loan, so one of the most effective ways to attract long-term loans in agriculture is to pledge a land plot. Therefore, a legislative procedure is necessary to regulate these economic categories in matters of land use, since it is the purchase and sale, lease, and pledge of land that express the right of ownership of a land plot.

To solve the above issues, we propose to establish a single agricultural tax that combines eight types of payments (VAT, CIT, groundwater tax, social tax, transport tax, corporate property tax, agricultural land tax, environmental emission charges). Its size should be determined on the basis of the land type, the bonitet point or cadastral value, and the share of the received income. This will create economic incentives for a more efficient use of land and will help to bring the sector out of the shadows.

Discussion:

The identified features of domestic competition and the proposed ways to improve the domestic economy's competitiveness can be considered for the formation of state programs for the competition development. It was necessary to eliminate a whole number of bureaucratic issues and provide the possibility of using leased land property as collateral when obtaining a loan. The goal is also to provide land that has not been used before, and thus increase the level of agricultural production.

Conclusion:

Research on the effective use of land resources taxation as a basis for sustainable rural development has shown the following:

– The current system of land taxation of agricultural objects does not meet the objectives of the introduction: land tax is not an incentive for production. The tax also does not function as an equalizer for the activity conditions of agricultural producers on the one hand, and other economic entities on the other.

– The existing approach to the calculation of land tax in the Republic does not contribute to the intensive development of agriculture and does not play a regulatory role. Revenues from the land tax are small and do not contribute to the regulation of agricultural production related to land protection, increasing its fertility, cash payments to agricultural producers working in worse conditions, etc.

– The economic aspect of land relations regulation consists in the implementation of the principle of paying land use through land taxation and rent, land valuation and price zoning, which allow conducting market operations with land, and selling land plots to the state and land use rights, and developing mortgage (collateral) lending to the peasantry. Assessment of land and establishment of the procedure for withdrawal allow the buy back and compensation for losses and damage, both to land users and the state.

– In the current conditions, it is extremely relevant to strengthen the role of the land tax as an important source of formation of the revenue part of local budgets, and to address the issue of its administration and further improvement of the collection mechanism. A solution to these issues will contribute to the improvement of its distribution, and therefore, equalization of economic conditions of farming in lands different by quality and location, growth in agriculture, preservation and increase of fertility, which ultimately will contribute to a significant increase in the revenues of the land tax to local budgets of RK. With the further development and expansion of the market economy, improvement of land relations, development of a legal framework in terms of land ownership and use, tax revenues from land use will grow.

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М.А. Уалиева, Д.И. Сыздыкова

Жер салығы жер ресурстарын тиімді пайдаланудың экономикалық механизмінің негізгі элементі ретінде

Аңдатпа

Мақсаты: Жер салығының ауыл шаруашылығын дамытудың тиімділігіне әсерін қарастыру. Қазақстандағы жер салығын есептеу тәртібін қарастыру. Жер салығын салу ерекшеліктерін зерттеу. Ауыл шаруашылығындағы жер ресурстарына салық салуды жетілдіруді қарастыру.

Әдістері: Зерттеу барысында статистикалық деректерді талдау және салыстырмалы талдау әдістері қолданылды.

Нәтижелері: Мақалада ауыл шаруашылық жер учаскелеріне салық салу аспектілері зерттелген. Қазақстандағы жер ресурстарына тиімді салық салуға әсер ететін бірқатар факторларға талдау жүргізілді. ЕАЭО елдеріндегі жер салығы бойынша салыстырмалы талдау жасалды. Жер салығына әсер ететін негізгі компоненттер және олардың функционалдық тиімділігінің негізгі параметрлері анықталды.

Қорытынды: Мақалада жер салығының қазіргі жағдайы талданды. Кадастрлық бағалау негізінде жер салығын дамыту және жетілдіру бойынша ұсыныстар баяндалды. Жүргізілген зерттеу нәтижелері аталған аспектілердің қайсысы жер ресурстарын тиімді пайдалануға әсер етеді деген қорытынды жасауға мүмкіндік береді.

Кілт сөздер: базалық мөлшерлеме, арнайы салық режимі, жер салығы, біртұтас жер салығы, салық салу объектісі, жер учаскесі, салық мөлшерлемесі, салықтық жеңілдіктер, топырақ бонитетінің балдары, кадастрлық құны.

М.А. Уалиева, Д.И. Сыздыкова

Земельный налог как основной элемент экономического механизма эффективного использования земельных ресурсов

Аннотация

Цель: Рассмотреть влияние земельного налога на эффективность развития сельского хозяйства, а также порядок исчисления земельного налога в Казахстане. Изучить особенности взимания земельного налога. Рассмотреть совершенствование налогообложения сельскохозяйственных земельных ресурсов.

Методы: В ходе исследования использовались статистический анализ данных и методы сравнительного анализа.

Результаты: В статье изучены аспекты налогообложения на сельскохозяйственные земельные участки. Осуществлен анализ ряд факторов, влияющих на эффективное налогообложение земельных ресурсов в Казахстане. Дан сравнительный анализ по земельному налогообложению в странах ЕАЭС. Выявлены ключевые составляющие, влияющие на земельное налогообложение и основные параметры их функциональной эффективности.

Выводы: В статье проанализировано современное состояние земельного налогообложения. Изложены предложения по развитию земельного налогообложения и совершенствованию на основе кадастровой оценки. Результаты проведённого исследования позволяют сделать вывод, какие из перечисленных аспектов влияют на эффективное использование земельных ресурсов.

Ключевые слова: базовая ставка, специальный налоговый режим, земельный налог, единый земельный налог, объект налогообложения, земельный участок, налоговая ставка, налоговые льготы, баллы бонитета почв, кадастровая стоимость.

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DOI 10.31489/2021Ec1/143-151
JEL F64
UDC 330.1

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Mechanisms for supporting "Green Finance" in the world practice and in Kazakhstan

Abstract

Object: To study the necessity of strengthen the role of "Green" financing in the economy of Kazakhstan, the most successful examples of financing and implementation of tools to support "Green" projects in more developed countries. Accordingly, the subject of the study is the financing of the "Green" economy in the world practice and in Kazakhstan.

Methods: Abstract-logical, system analysis, comparative analysis.

Findings: As a result of the study, development state of "Green" financing in Kazakhstan is assessed and the experiences of advanced countries are identified.

Thus, in the course of analysis more advanced countries were identified, such as China, Korea, the United Kingdom, Canada and others, which have made some progress in the release of " Green tools implementation of electricity production from renewable sources, recycling of household waste and reduction of biodegradable landfills and formation of targeted environmental investment funds, etc. Obtained results indicate that Kazakhstan has not sufficiently addressed the aspects of economy related to sources of "Green" financing that contribute preservation of environmental quality in conditions of financial resources shortage and bringing it in line with the principles of sustainable development of the country. Also, the issue of "Green economy" is not sufficiently activated, which covers such categories as "Green" economy, "Green" credit, "Green" thinking, etc.

The reached conclusions outlined in the study framework are in general nature, we simply set the task-to find out the current situation on this issue and continue to rethink the modern concepts of scientific approaches in this area.

Conclusions: The development of Green finance in Kazakhstan and government support the Green incentives should be aimed at ensuring the sustainable development of the Green economy through:

– creating an effective mechanism for implementing "Green" finance;
– formation of management system for development of "Green" finance and its consolidation in legislative and regulatory acts.

Keywords: «Green» economy, «Green financing», «Green investments», «Green projects», «Green credit», «Green bonds», etc.

Introduction

In the world, for all countries, one of the components of the competitiveness category is considered to be the environmental aspect, which sets a new format for international cooperation on the implementation of «Green» financial instruments and most countries are actively involved in the process and support the development of the «Green» Finance market in the national interest.

Therefore, acceptance of timely decisions to ensure a quality development - in contrast to solutions of catch-up development. In addition, «Green» financing is «a window of opportunity in the modern world, which implies a qualitatively new development of the national financial market». (Greenbelarus.info, 2019)

Literature Review

According to the source «Green Finance: there is a chance not to be late», the authors adopted a number of statements, such as:

– theembeddedness of the Green component in the financial system of economic entities and the country as a whole, and this should be supported by state approaches;

– the implementation of Green Finance means adhering to three criteria. these are Green loans, Green bonds, Green banks and Green funds, i.e. we are talking about the use of modern financial instruments of the circular economy, which in the future will find justification in terms of their active viability.

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In the materials of the G20 summit in China (Hangzhou) in the direction: Green light for Green Finance (2016, September, 28), attention is paid to the concept, goals and scope of financing for the «Green economy», tools and recommendations for overcoming existing challenges in various countries are considered, while emphasizing that «China is becoming a world leader and Directives have been developed for the formation of a national Green Finance mechanism, which provides for attracting private investment in the Green economy, since funding from state sources is estimated by experts to be only 15%»

The program «Greening the economy in the Eastern partnership countries» offers recognized ways to reform public policy, corporate strategies, and public awareness of environmental consumers. (EaPGREEN, 2014)

In a number of countries, one of the most pressing issues is ensuring the quality of life of the population, and many States have declared their commitment to the goal of developing a «Green economy» that ensures the implementation of the concept of sustainable development. The usefulness of this publication is that all interested parties can use this document as a reference guide.

The article entitled «The financial mechanism for providing investment lending to the economy of Ukraine with the participation of international financial institutions» (Bulletin of NAS RK No. 6. 2019), helped to support the understanding of problems with a chronic nature, in particular, in environmental issues that require significant financial resources (long-term investments), including with the participation of international financial institutions (IFIs). This practice also takes place in Kazakhstan through the UNDP and investment efficiency from the implementation of «Green projects» of IFIs is currently in the formation stage, so it is not yet possible to give a sufficient assessment, although some experts note positive effects.

In the materials «His Majesty The government. Updated information on the design of the Green Investment Bank» (investment Bank report, 2011) presents the experience of this state's commitment to environmental damage and sets out the vision of a new and strong institution - the world's first dedicated Green investment Bank.

The author also demonstrates the practice of the Offshore wind energy Fund (GIB), whose institutional investors are life insurance companies, pension funds and state welfare funds. the author examines the effective aspects of the GIB Fund's existence in order to state his vision of the continuity of the Fund's experience in other countries (report of the Green investment Bank, 2014).

Working with the materials of the research on the topic «A Green Economy for Canada: allowed the authors to make sure that there is no consensus on the concept of «Green economy» and the opinions of many participants based on the conference materials are aimed at optimizing communication efforts. there is a reasonable national dialogue between States on the issue of environmental protection and, in particular, the issue of financing environmental programs (Canadian Institute for Environmental Law and Policy-CIELAP,2011)

The study of the Ontario budget according to the document made it possible to identify effective practices in this province of Canada for issuing «Green bonds» and financing relevant environmental projects.

According to UNEP sources. Review of the national strategy of the Republic of Korea for Green growth and an article entitled "System architecture for effective Green Finance in Korea, the Korean economy" found that Korea considers the "Green economy" and "Green growth" as a unique basis for its country's development and recognized it as part of the national strategy. In addition, the author claims that countries where Green technologies do not have a reputation can be considered risky. The author considers the Korean experience in the application of "Green technologies" as an object for continuity in Kazakhstan in accordance with the national capabilities of the country. System architecture for efficient Green Finance in Korea, ((OECD strategy 2011, Kim Hyun Tae. 2010)

The process of creating and establishing the AIFC's activities is necessary in the context of the needs of developing the country's Green economy, capital market and financial services, and the "Green" component is supported as a Strategy on the AIFC site (Bulletin of NAS RK No. 5, 2019, 191-198)

By sources: Internet resource: IA "BNews.kz" and the reporting material of IA Strategy 2050.kz tracks the development of the Green economy and what progress Kazakhstan has so far.

The Internet resource "Green bonds for Green business" addresses the issue of risk management, which involves banks taking into account environmental risks in credit analysis in order to avoid reputational risk or financial losses (Kapital.kz , 2020) .

Despite a number of existing positive aspects , many researchers identified and constraints development of "Green economy" is underdeveloped in the field of the environment, the uncertainty of the investors component to "Green" the measurement problem "Green growth", the preference of the banking sector, firms large and dirty (Rakov I. D.2017)

A review and comparison of individual advanced approaches from various literature sources allowed us to identify effective "Green" technologies, ensuring "Green" growth as part of national strategy, issuing "Green" bonds, forming "Green" funds, however, our state at the present stage of its development does not have enough national capabilities to implement the best practices of "Green" financing.

Now in the market of "Green" services mainly operate IFCA-"Astana", which is engaged in providing financial services of international level, i.e. at the macro level, therefore implementation issue of "Green" projects of small and medium business was an outsider and it's enough to note that the development of "Green" potential depends on the ability of sustainable development of the country.

In the list of used sources, the authors mainly considered and disclosed practical approaches from foreign sources, as well as domestic literature on this topic or convincing examples of practice on "Green" economy with all components ("Green" financing. "Green" investments, etc.) it turned out to be very problematic due to the lack or insufficient attention of economic scientists to disclosure of financing problems of "Green projects" at meso-and mico-level.

In our opinion the "Green" economy is spelled out in different ways in the strategic documents of Kazakhstan, somewhere it is declared without explaining how to implement it, in the number of documents on the development strategy of companies posted on websites, only elements are reflected, if you put them together, then a fragmentary strategy is formed in terms of the implementation of the category under study.

In general, it should be noted that there is practically no scientific work in Kazakhstan on the stages of development and creation of the "Green" economy. In this regard, in this research, we have to limit ourselves only to the results of comparative analysis and abstract-logical conclusions about formation of theoretical approaches to implementation of opportunities for" Green " financing.

Methods

In the study we applied the empirical method of investigation (description. comparison); general logical methods (analysis. abstraction. conclusions. a systematic approach), which made it possible to update the urgent need, seriousness and priority of lending to environmental projects around the world and to take all possible measures to activate "Green" long-term financing instruments in Kazakhstan.

Results

If we consider the global experience of environmental Finance, then China is the leader in the activity of issuing "Green" bonds, and in 2016 the circulation was the highest in the world. The development of the Green bond market has contributed to the opening of new financing channels for Green enterprises and projects. [G20 summit,(2019)].

Many countries are interested in studying the experience of the Eastern partnership (EAP) countries) The European community (EU), where an important source of long - term financing for "Green" investments is the credit lines of international financial institutions (IFIs) in the field of energy and resource efficiency. The IFI consists of: The European Bank for reconstruction and development (EBRD), the international Finance Corporation, the European investment Bank, the world Bank (IBRD), the Asian development Bank, KfW, the Austrian development Bank, and the Northern environmental Finance Corporation (NEFCO). [Report by OECD, 2014, 141-151, Panteleeva N et al., Bulletin of NAS RK №6. 2019, 141 to 153]

In addition to environmental financing through banks, EAP countries use other multilateral instruments, including the Green Fund for growth, the Global climate partnership Fund, and the E5P Fund.

The experience of using mechanisms to support Green Finance in developed countries is interesting. for example, the UK's environmental ambitions were as follows: to produce 15% of all energy from renewable sources, to recycle 50% of household waste by 2020, and to reduce the landfill of biodegradable urban waste by 35% by 2020 compared to 1995 (EU Waste Framework Directive, Investment bank report, 2011, 2014)

In 2012, the Green investment Bank (GIB), created on the initiative of the government of England, identified barriers to weak investment flows in" Green " projects and one of the most serious among them is the difficulty of attracting institutional investors to a large number of small low-carbon projects, which is inherent in the practice of many countries. The Bank (GIB) uses the following main tools to eliminate these barriers: loans and equity investments, financing through an investment Fund, and guarantees. In the UK, the financing of "Green" projects is supported by the British business Bank, whose clients-borrowers are primarily small and medium – sized businesses.

In Korea, the President (Lee Myung-Bak) announced the implementation of the national strategy for "low-carbon "Green" growth" in November 2008, and according to the strategic plan for 2009-2013, expenditures were planned at the rate of 2 % of GDP .

As part of the "Green" new deal, the Korean government has increased its focus on major construction projects, including the restoration of four major rivers, the construction of 1 million "Green" homes by 2020, high-speed Railways, and "Green" lending is provided through conventional commercial banks that use three schemes: direct lending, re-lending, and Deposit scheme. (UNEP Green Economy Initiative, 2015)

Features of the "Green "practice in Canada are that the problems of" Green " Finance are solved by the territorial and provincial governments. Based on a study by The Canadian Institute for Environmental Law and Policy (CIELAP) the factors that hinder the implementation of the "Green" economy and the influx of "Green" investments are identified, as such: lack of leadership positions of the "Green" economy at the Federal level, which creates unattractiveness for business; insufficient public understanding; tension and lack of coherence among and between stakeholders and the government.(Consulting: Carolyn Webb, Thomas C. Esakin,2011)

In this area, the most active province is Ontario, which was the first in Canada to issue Green bonds to Finance environmental projects (clean transport; energy conservation and energy efficiency; clean energy, forestry, agriculture, land management; adaptation and resilience to climate change). The Green Investment Fund is very effective. the main areas of funding are the construction of a network of fast charging stations for electric vehicles (us $ 20 million), reduction of Greenhouse gas emissions and electricity costs (us $ 100 million), support for the energy efficiency initiative for small and medium-sized enterprises (SMEs) (us $ 26 million), and support for other initiatives

The Toronto Atmospheric Fund (TAF) and Tridel (a residential developer) launched an energy efficiency loan program (Green Condo Loan program) in 2005. The essence of the program was that the Fund provides credit for the gap between buyers who will have lower utility costs due to energy efficiency (by 25% or more), and builders who spent more money on the construction of "Green" buildings, etc. (Ontario Budget, 2016)

Analysis of the experience of developed countries has shown that market mechanisms, in contrast to government support measures, can not reorient the traditional economy to "Green" and this is due to the fact that "Green" projects, unlike conventional ones, have higher risks and a longer payback period. Therefore, only the measures of state support are able to address these market failure and to promote the business.

In Kazakhstan, the Astana international financial center (hereinafter referred to as the AIFC) is an analog of the IFI from the experience of the Eastern partnership countries, which considers the "Green Finance" industry as one of its priorities. Getting into the essence of the concept of "Green Finance" it is necessary to understand that they mean financial resources that are intended for the implementation of projects aimed at reducing air pollution, reducing water, energy, heat, and so on. Although the term is interpreted in different ways, the basic idea is always to preserve the environment. The instruments of "Green Finance" are bonds, trading quotas for CO2 emissions, loans, Bank cards, mortgages and insurance, and others/ (Zhagyparova A. O. et al., 2019)

In the post-Soviet space, Kazakhstan is a leader in the transition to a Green economy. The environmental code was adopted in 2007, the concept of transition to a Green economy was adopted in 2013, and the Paris Convention was ratified in 2016. In the above-mentioned and other documents, the implementation of Kazakhstan's goals in the "Green" economy is set until 2050

Kazakhstan has been cooperating with the United Nations development Program (hereinafter referred to as UNDP) for more than seventeen years, which supports national partners to implement the concept of sustainable development of Kazakhstan until 2024. UNDP also supports the country's efforts to address global warming by promoting energy conservation, more economical use of water resources, and the mobilization of renewable energy sources, including wind power .(IA "BNews.kz, 2019, September, 12)

In 2016, UNDP launched four projects at the state level aimed at using "Green" technologies in desert and semi-desert regions, integrated use of reservoirs and sanitation in rural areas, as well as the construction of Greenhouses in the Northern regions of the country to diversify the market for fruit and vegetable products, the essence and directions of which are systematized in table 1.

Table 1. Directions and results of the implementation of "Green" projects

Projects	Goal and results of Green technology
Kyzylorda region	**1 project:** Returning desert and semi-desert regions to agriculture and using these zones in agricultural activities by creating oasis irrigation,
Almaty region, Ili district, Akshi village	**2 project:** Creation of "Green" infrastructure with the aim of solving the issues of water disposal in the village, which is not available in the village
Astana	**3 project:** Equipping Greenhouses with modern production technologies and using renewable energy, which will ensure the cultivation of organic and environmental products in the northern regions, while there is no need to import them from the south.
Aktobe region, Kargaly district, Kargaly reservoir.	**4 project:** The development of fisheries, ponds, Greenhouses, the installation of mini-hydroelectric power stations for energy supply of water infrastructure, the creation of recreational areas with the aim of making full use of inactive water infrastructure. It should be noted that through public-private partnerships the development of inactive water infrastructure can attract investment in the regions, be economically viable, i.e. make a profit
Note: Compiled by the authors on the Internet source	

The experience of some countries demonstrates mechanisms to support SMEs ' access to long-term lending by providing loan guarantees, subsidizing interest rates in order to activate loan portfolios, and this practice has become practiced in Kazakhstan.

We conducted a survey of the practice of "Green Finance" for the housing and utilities modernization project in Kazakhstan in 2017 through the UNDP. In the process of verbal interaction with colleagues, JSC "entrepreneurship development Fund "Damu" is found out that in 2018 only received 6 applications in 2019 32 applications and it should be noted from the words of the representatives of the Fund investors in the face of small and medium businesses are reluctant to or do not support the development of projects of modernization of the sectors of municipal heat and water supply, public and residential buildings, street and interior lighting, as traditionally focused on trade than on some "Green projects".

To date, in Kazakhstan and in the regions, the work of UNDP is obvious, which verifies the project and proves its technical viability, then the investor receives a "Green" certificate on the basis of which financing is provided through second-tier banks and a subsidy agreement is concluded. The Damu Foundation provides funds allocated by UNDP and a guarantee of 50% of the loan amount has been declared for the first recipients to attract them. As a result, the subsidy is expressed in a reduction of the interest rate-10% on commercial loans and the main criterion for selecting projects under this program is to reduce energy consumption.

The study of the essence of "Green credit lines" showed that banks could demonstrate a reputation, attractiveness and competitive advantages, however, without the support of resources of international financial institutions (hereinafter referred to as IFIs), the introduction of "Green lending" is limited or not implemented at all.

When asked why banks are forced to work with international financial institutions on "Green lending" products, the study revealed the following:

– the lowest cost of funds offered under environmental credit lines by IFIs available to commercial banks, i.e. more preferential than in the case of other products;

– the term of Green lending is longer than the term of lending for other products, and for many local banks this is one of the most important factors.

– most credit lines are accompanied by the provision of some form of technical assistance to a local financial institution (funded by donors).

– loans from donors are provided in foreign currency and conditions remain more attractive. All four of the above points are available to local banks and this "Green Finance" scheme is also available in the Eastern partnership countries.

When visiting local commercial banks (Sberbank, Forte Bank, Halyk Bank, Alfa-Bank, and others), one name of an environmental credit product called UNDP was suggested in the list of credit products and it was not requested. The abbreviation itself is given to a client who is not aware of the declared program at the state level and does not know the decryption does not say anything, so they will never pay attention to this credit product. In addition, we are not offered an advertising booklet for this product, where you can find complete information with an emphasis on the attractive part of this product, i.e. credit institutions themselves have not yet sufficiently realized the essence and significance of the economic category "Green credit" for a civilized state and therefore do not support the issue of updating.

During the conversation with credit managers, we found out the reasons for the insufficient demand for opening environmental credit lines, which are systematized in table 2.

Table 2. Results of the authors` visit to local banks in the region on the implementation of a joint project of UNDP, The government of the RK and the entrepreneurship Fund «Damu»

№	Reasons for the absence or low level of demand for environmental credit product of banks
1	The absence of advertising booklet and consultation on this product is not carried out, therefore, customers are not sufficiently informed about environmentally friendly technologies and associated economic benefits obtained after the implementation of environmental projects
2	Borrowers prioritize economic considerations rather than environmental considerations, and therefore there is no desire to prepare environmental projects
3	high transaction costs for the promotion and monitoring of projects;
4	insufficient level of awareness by mankind of the scale and global nature of environmental protection problems, etc.
Note: compiled by the authors based on the results of a conversation with employees of JSC «entrepreneurship Fund «Damu»	

Discussions

Thus, each state has opportunity to thoroughly study the successive aspects of world practice and, if necessary, use them, but for this it is necessary to make sure, taking into account national capabilities, to support its state, to carefully fix them in regulatory and legislative acts only then we will be able to interest and attract business structures to implementation of the "Green economy".

In Kazakhstan mainly Green deal financing foreign banks such as the European Bank of reconstruction and development, the world Bank, the Eurasian development Bank, the Asian development Bank, therefore, also be necessary to increase the line of credit by domestic banks to provide financial support for environmental projects under the low interest rates, and also need to involve other instruments that are recognized in the world.

In general, this study was aimed at finding answers to the questions: is there really “Green” financing in the context of “Green” investments, how many companies provide “Green” financing, and others. However, in order to answer to these questions, there was a need for information that would characterize the activity of Kazakhstan’s companies in field of financing "Green investment projects" at their own expense. But due to the lack of statistical, reporting data and in order to extract information confirming the implementation of "Green" investment projects by private investors, the official websites of subsoil users in Aktobe region were analyzed and the following picture was obtained: - confirmation of information was shown by -2.7 %, companies that expressed their intentions to finance environmental protection measures-10%, companies that do not disclose information about financing on the websites -72.5%, etc. This leads to conclusion that the main source of funding today is the state.

Conclusions

New global trends include "Greening" of the economy and Kazakhstan does not remain indifferent to this phenomenon. Recently, the topic of "Green" Finance deserves special attention, and stakeholders are discussing the relevance of "Green" Finance tools and the effectiveness of practical approaches to this area. However, the lack of clear environmental signals and the small experience of the AIFC as a coordinating center lead to the fact that "Green" initiatives remain fragmented and do not favor the consistent development of "Green" Finance in Kazakhstan.

The vital need for the development of "Green" financing is fully understood by society, but the implementation of subsequent actions is still fully under discussion. Self-financing, which is practiced by subsoil users in Kazakhstan, is one of the directions of the market mechanism for supporting "Green" investments, but it is not widespread and is poorly developed.

The main reasons that hinder the development of "Green" financing in Kazakhstan are: disunity and uncoordinated actions of the parties involved; little experience of the single center - AIFC, which does not yet have a sufficient portfolio of "Green" projects; lack of opportunities to set relatively modest targets in terms of reducing GHG emissions; weak provision of "Green" instruments with standards, regulatory framework; passive behavior of commercial banks; insufficient awareness of institutional investors, such as pension funds, insurance funds, and national welfare funds, about the risks and profitability opportunities associated with Green financing, etc.

Therefore, as customary in international practice to achieve successful results in the markets of "Green" financing, effective use of "Green" tools or platforms is necessary to ensure coordination among the stakeholders (Ministry of environmental protection as to the applicant's environmental problems, IFCA coordinator, commercial banks, institutional investors, financing, small and medium businesses–entities that develop "Green" projects, consumers – subjects receiving Green services, etc.) and environmental considerations should be integrated into the framework of public policy, i.e. the state should play a significant role in supporting the development of Green Finance, not the market.

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Әлемдік практикада және Қазақстанда «жасыл» қаржыландыруды қолдау тетіктері

Аңдатпа:

Мақсаты: Қазақстан экономикасында «жасыл» қаржыландырудың рөлін күшейту қажеттілігі мәселесін зерттеу, неғұрлым дамыған елдердің «жасыл» жобаларын қаржыландыру мен қолдау құралдарын іске асырудың табысты мысалдарын зерделеу. Тиісінше, зерттеу пәні әлемдік тәжірибеде және Қазақстанда «жасыл» экономиканы қаржыландыру болып табылады.

Әдісі: Дерексіз-логикалық, жүйелік талдау, салыстырмалы талдау.

Қорытынды: Зерттеу нәтижесінде Қазақстандағы «жасыл» қаржыландырудың даму жағдайы бағаланды, онда бұл мәселе жаһандық ауқымдағы негізгі позиция ретінде қаралды.

Осылайша, талдау барысында Қытай сияқты дамыған елдер анықталды. Корея, Ұлыбритания, Канада және басқалары «жаңартылатын көздер», тұрмыстық қалдықтарды қайта өңдеу және биологиялық ыдырайтын полигондарды азайту және атаулы инвестициялық экологиялық қорларды қалыптастыру және т. б. арқылы электр энергиясын өндіруді жүзеге асырудың жасыл құралдарын шығаруда белгілі бір жетістіктерге жетті.

Алынған нәтижелер бүгінгі күнге дейін Қазақстанда қаржы ресурстарының тапшылығы жағдайында қоршаған ортаның сапасын сақтауға және оны елдің орнықты даму қағидаттарына сәйкес келтіруге ықпал ететін «жасыл» қаржыландыру көздерімен байланысты экономика аспектілері жеткілікті шешілмегенін куәландырады. Сондай-ақ «жасыл» экономика, «жасыл» кредит, «жасыл» ойлау және басқа да сан қырлы ұғым ретінде қамтитын «жасыл» экономика мәселесі тиісті дәрежеде жандандырылмаған.

Зерттеу аясында қол жеткізілген тұжырымдар жалпы сипатқа ие және оларды талдау кезінде бар проблемаларды жою үшін қандай да бір қолданбалы шешімдер қабылдауды мақсат етпеген, жай ғана осы мәселе бойынша қазіргі жағдайды анықтап, осы саладағы ғылыми тәсілдердің заманауи тұжырымдамаларын қайта қарастыруды жалғастыруды мақсат еткен.

Тұжырымдама: Қазақстанда «жасыл» қаржыны дамыту және жеңілдік пен басқа да қолдаушы «жасыл» ынталандырулар арқылы мемлекеттің қолдауы «жасыл» экономиканың орнықты дамуын қамтамасыз етуге бағытталуы тиіс:

– «жасыл» қаржыны іске асырудың тиімді тетігін құру, бұл ретте жетекші шетелдер тәжірибесінің сабақтастық жақтарын пайдалана және өз мемлекетінің ұлттық мүмкіндіктерін ескере отырып;

– «жасыл» қаржыны дамытуды басқару жүйесін қалыптастыру және оны заңнамалық-нормативтік актілерде бекіту.

Кілт сөздер: «жасыл» экономика, «жасыл» қаржыландыру, «жасыл» инвестициялар, «жасыл» жобалар, «жасыл» кредит, «жасыл» облигациялар және т.б.

М.А. Уразгалиева, Н.К. Калаганова, О.И. Лыгина, И.А. Рыкова

Механизмы поддержки «зеленого» финансирования в мировой практике и в Казахстане

Аннотация

Цель: Исследовать вопрос необходимости усиления роли «зеленого» финансирования в экономике Казахстана, изучить наиболее успешные примеры финансирования и реализации инструментов поддержки «зеленых» проектов более развитых стран. Соответственно, предметом исследования является финансирование «зеленой» экономики в мировой практике и в Казахстане.

Методы: Применялись методы абстрактно-логического, системного и сравнительного анализа.

Результаты: В результате исследования оценено состояние развития «зеленого» финансирования в Казахстане и выявлены опыты передовых государств, где данный вопрос рассматривается как ключевая позиция глобального масштаба. Таким образом, в процессе анализа обозначились более продвинутые страны, такие как Китай, Корея, Великобритания, Канада и другие, которые добились определенных успехов в выпуске «зеленых» инструментов, осуществления производства электроэнергии за счет возобновляемых источников, переработки бытовых отходов и сокращения биоразлагаемых свалок и формирования адресных инвестиционных экологических фондов и т.д. Полученные результаты свидетельствуют о том, что на сегодняшний день в Казахстане недостаточно решены аспекты экономики, связанные с источниками «зеленого» финансирования, способствующие сохранению качества окружающей среды в условиях дефицита финансовых ресурсов и приведением его в соответствие с принципами устойчивого развития страны. Также не в должной мере активизирован вопрос «зеленой» экономики, который охватывает как многогранное понятие таких категорий, как «зеленая» экономика, «зеленый» кредит, «зеленое» мышление и ряд других.

Достигнутые выводы, обозначенные в рамках проведенного исследования, носят общий характер и при их анализе нами не ставилась цель выработать какие-либо прикладные решения по устранению существующих проблем, просто была поставлена задача — выяснить сегодняшнюю ситуацию по данной проблематике и продолжить переосмысление современных концепций научных подходов в данной сфере,

Выводы: Развитие «зеленых» финансов в Казахстане и поддержка государством с помощью льготных и других поддерживающих «зеленых» стимулов должны быть направлены на обеспечение устойчивого развития «зеленой» экономики через:

– создание эффективного механизма реализации «зеленых» финансов, при этом используя преемственные стороны опыта лидирующих зарубежных стран и с учетом национальных возможностей своего государства;

– формирование системы управления развитием «зеленых» финансов и закрепление ее в законодательно-нормативных актах.

Ключевые слова: «зеленая» экономика, «зеленое» финансирование, «зеленые» инвестиции, «зеленые» проекты, «зеленый» кредит, «зеленые» облигации и т.д.

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DOI 10.31489/2021Ec1/152-161
JEL O16
UDC 33.06

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State regulation of the securities market of the Republic of Kazakhstan

Abstract

Object: The purpose is to identify promising directions for the development of the securities market of the Republic of Kazakhstan and reform the system of its government regulation.

Methods: The study used methods of empirical, subject-object, system, deductive and comparative analysis. Each of these methods was used adequately to its functional capabilities and resolving abilities for solving the corresponding stage research tasks.

Findings: As a result of the research by the author:

– features of the securities market as an object of government regulation are studied;

– infrastructure support of the system of government regulation of the securities market of the Republic of Kazakhstan was examined;

– assessment of the current state of the securities market of the Republic;

– system problems of government regulation and market development are investigated;

– promising areas of reforming the securities market of the Republic of Kazakhstan and its government regulation system are developed and scientifically substantiated.

Conclusions: A shift of focus from problems of legal support of the system of government regulation of the securities market of the Republic of Kazakhstan to the problem of primary transparency and reliability of the market in terms of economic integration and global coronacrisis will allow achieving the following targets:

– share market capitalization to GDP will double if new IPOs are held by corporate issuers;

– RFCA will join the group of ten leading financial centers in Asia;

– access to financial services for a wide range of consumers will be provided;

– increase of financial literacy of the population, protection of interests of potential investors and safety of savings of market participants will be ensured.

Keywords: government regulation, securities market, investment climate, market capitalization, Kazakhstan stock exchange (KASE), institutional investors, professional market participants, financial literacy.

Introduction

In the Plan of Nation “100 Specific Steps to Implement 5 Institutional Reforms” by Elbasy Nursultan Nazarbayev, the regulation and development of the securities market is considered as one of the effective government measures to improve the financial sector of the Republic of Kazakhstan. Speaking at the Astana economic forum, the Leader of the Nation has quoted this clause, having noted that“there are no more oil super-profits now, so one of the alternative sources of financing industrial and innovative development of the state should be the improvement of mechanisms for attracting the temporarily free financial resources from the people”. Thereby N.A. Nazarbayev has set the direction of the further work for the representative and executive authorities of the Republic.

Following the points outlined by Elbasy in the policy document, now the Government spends significant amounts from the republican budget to finance work on studying the promising courses of development of the securities market of the Republic. Great attention is paid to the issues of improving the financial literacy of people. The implementation of the People's IPO program continues, which consists in the public placement of share of the large domestic companies for sale to the general public of Kazakhstan. But despite

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this fact, government regulation has a number of serious problems associated with hard regulatory infrastructure, as well as excessive attention to the professional players of the securities market.

For a relatively short period, the Parliament of Kazakhstan has developed 59 improved laws and regulations, a significant part of which forms a completely new legal environment in the system of economic relations regarding the issue and trading of securities. However, the lack of a systemic approach to the regulation and development of the securities market, as well as the modern trends caused by the global coronacrisis, directed the activities of the central authorities towards the adaptation of the domestic market to the crisis conditions, as a result of which the current securities market of Kazakhstan does not fulfill itsinvestment function, but serves mostly as an object of speculative operations.

Considering the foregoing, we have to state the lack of fundamental studies in the field of government regulation and the development of the securities market, which determines the relevance of the topic of the scientific publication.

The **hypothesis** of the authors consists in the assumption that the shift of the focus from the problems of legal support of the system of state regulation of the securities market of the Republic of Kazakhstan to the problem of primary transparency and reliability of the market from the point of view of potential investors will serve as an evolutionary trigger of its intensive development.

Literature Review

In recent years, many domestic scientists and practitioners study the modern securities market and the mechanisms of itsfunctioning. Modern Russian researchers often touch upon the issues of the development of the securities market. This problem can be found in the works by P.Abbassi, R. Iyer, J-L.Peydró, F. R.Tous, (Abbassi,Iyer,Peydro,Tous,2016),J.M. Bottazzi, J. Luque, M.R. Pascoa (Bottazzi, Luque, Pascoa, 2012) andM.Cabán-García, (Cabán-García, 2011). T.Lohse, R. Pascalau, (Lohse, Pascalau, 2014), J. Luque, M. R. Páscoa, (Luque, Páscoa, 2014), M.Magill, M. Quinzii (Magill, Quinzii, 2011), J.L. Teall (Teall, 2013).

Special attention should be paid to M. Golovnin (Golovnin,2016), R. Erkebaev (Erkebaev,2016), R Miller (2016), L. Zhumabekov (Zhumabekov,2020), who deal with the study of the processes of merging the markets of Russia and Kazakhstan. The mentioned scientific papers constitute the core methodological basis for understanding the specific features of the organization of the securities market.

The works dedicated to the issues of government regulation and development of the securities market in Kazakhstan include the studies by G. Karagusova (Karagusova,2020), B. Yesenov (Yesenov,2019), S.V. Agaltsova (Agaltsova, 2020), etc. It should be noted that most of the mentioned papers mainly consider ways to improve the well-being of the people by creating a favorable investment climate in the country. They also cover other important issues, but in general, we can speak of the lack of specific proposals that can fundamentally change the current situation in the securities market.

Methods

The study used methods of empirical, subject-object, system, deductive and comparative analysis. Each of these methods was used adequately to its functional capabilities and resolving abilities for solving the corresponding stage research tasks.

The use of empirical and theoretical methods in this study made it possible toconduct a more detailed study of theeconomic essence of the securities market of the Republic of Kazakhstan as an object of state regulation.

In the course of examination of the infrastructural support of the system of sgovernment regulation of the securities market of the Republic of Kazakhstan, the method of collection of information, and, partially, the abstraction method for effective search, grouping, processing, and generalization of the necessary material was used.

Having studied the main economic indicators of the market, the authorsp roceeded to the use of systemic and comparativere search methods, in the course of which they have analyzed and assessed the current state of the securities market of the Republic. The systemic problems of government regulation and market development were identified.

Finally, the use of the induction method allowed to formulate the main conclusions of the study of the process of development of the securities market of the Republic of Kazakhstan as an object of government regulation. At the same time, the abstraction method allowed us to exclude in significant characteristics in the regulation and development of the market and thereby focus on its most promising areas of reforming, which include: increasing the stability and efficiency of the securities market in the context of economic integration and global coronacrisis, improvement of the government regulation infrastructure and creation of the optimal conditions for the qualitative development of the securities market, broadening of the potential of the securities market, including through the financial products the meet the needs of the modern economic situation in Kazakhstan.

The authors have also used the expert assessments of independent researchers and materials published in public electronic sources: www.kase.kz, www.kazpravda.kz, www.newskaz.ru, www.online.zakon.kz, www.vesti.kz, www.kaztag.kz, www.sciencedirect.com.

The common logic of the work is based on the complex and systemic approach with the use of the modern scholarly apparatus.

Results

The securities market is a set of economic relations regarding the issue and trading of securities between its subjects: issuers, investors, and professional market players.

The market players, who are both issuers and traders, are conventionally divided into several groups.

1. Financial institutions conducting securities transactions: commercial and investment banks, insurance companies, pension funds, etc.
2. Individual investors - individuals, including owners of small venture enterprises.
3. Professional players of securities market: brokers (intermediaries who carry out transactionsat the expense and on behalf of the client) and dealers (intermediaries who carry out transactions at their own expense andin their own name).
4. State, local executive bodies, largest national and international companies(Miller, 2016).

Government regulation of the securities market–actions of organizations authorized by the state aimed at adjusting the actions of the securities market players.

The main goal of government regulation is the maintenance of the efficiency of functioning and further development of the securities market through:

– ensuring order and favourable working conditions for all market players;

– control over pricing in the market based on real supply and demand;

– creation of an efficient mechanism of redistribution of the fictitious capital that has the potential for adequate compensation of risks of the market players;

– protection of the market players from various fraudulent actions of counterparties: unfair competition, trade in insider information, fraud, etc.;

– reasonable taxation of the securities sector;

– organization of the new markets, support of their structures, initiatives and innovations;

– prevention of infringement of public interest in the course of development of the securities market.

In accordance with the Law “On the Securities Market”, the government regulation authorities are designed to solve the following tasks:

– establish the mandatory requirements to the activities of the issuers and the professional players of the securities market, as well as its standards;

– registration of the issues of securities and issue prospectus; control over the compliance by the issuers with the terms and obligations provided for in these documents;

– licensing of the activities of the professional players of the securities market;

– creation of the system for the protection of the rights of owners and control over observance of their rights by the issuers and professional players of the financial market;

– prohibition and suppression of activities of the persons engaged in unlicensed entrepreneurial activities, as well as the organization of the system for improving the levels of proficiency and education of securities market players.

There are many ways of government regulation of the securities market (Fig. 1).

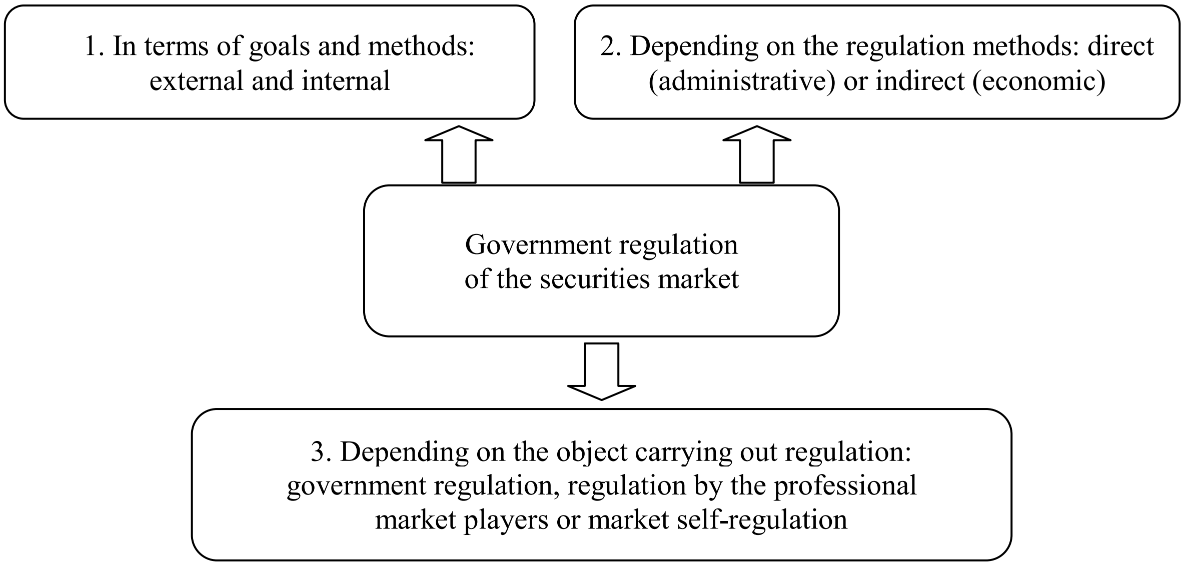

Figure 1. Government regulation of the security market

Note–prepared by the authors based on (Lohse, Pascalau, 2014, 199-200)

The infrastructure of the government regulation of the security markets of the Republic of Kazakhstan is represented by the following bodies – Figure 2.

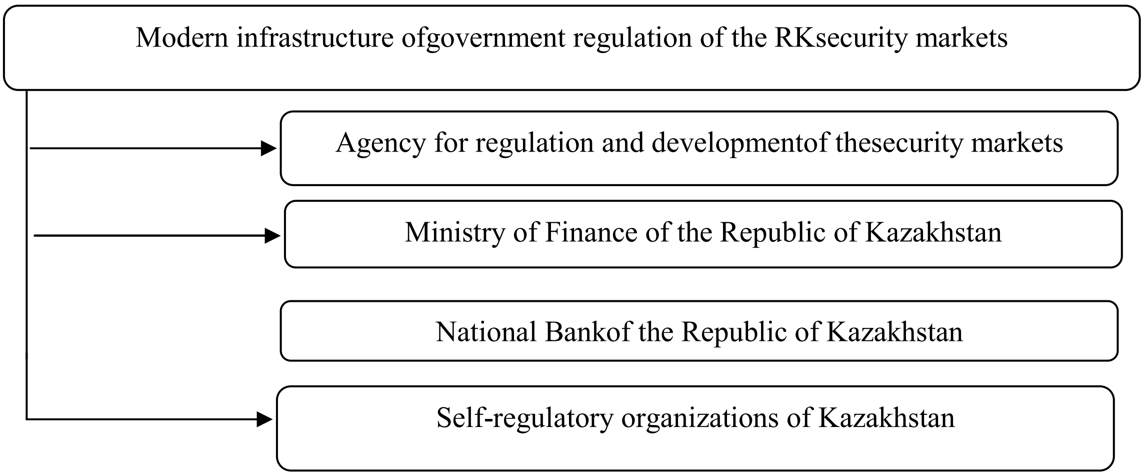

Figure 2. Infrastructure of the government regulation ofthe security markets of RK

Note–prepared by the authors

The securities market can also be regulated with the help of the market players themselves. For this purpose, the professional market players (brokers and dealers) unite into non-profit organizations. The goal of such organizations is participation in the process of regulating the security markets together withstate regulatory bodies. In this case, the state delegates them a part of its regulating functions. However, these organizations cannot be called public; they areself-regulatory organizations (SRO) (Cabán-García, 2011, 284).

In Kazakhstan, the only full-fledged self-regulatory organization is the Kazakhstan Stock Exchange (KASE). The KASE index is the key indicator characterizing the dynamics of development of the securities market of Kazakhstan.

The government securities are nothigh-yielding, but they have a high degree of reliability, and, therefore, there are always social groups (retired persons, single persons, families without a bread winner,etc.), who do not want to risk and prefer to invest their funds in such securities.

In the author's opinion, to assess the efficiency of the government measures for regulation and development of the market it is necessary to focus onthe more dynamic market of non-public securities and its institutional investors.

Table 1. Number of institutional investors and the size of their assets

Types of institutional investors	Number of institutional investors		Size of assets (bln US dollars)		Size of investment assets (bln US dollars)	
	As of January 01, 2019	As of January 01, 2020	As of January 01, 2019	As of January 01, 2020	As of January 01, 2019	As of January 01, 2020
Integrated Accumulative Pension Fund	1	1	9,51	12,53	9,28	12,39
Investment funds	259	223	2,15	2,43	2,15	2,43
Banking sector	19	20	80,06	77,83	5,57	11,71
Insurance sector	44	41	1,81	2,00	1,34	1,40
Professional players of the securities market	103	83	3,00	1,18	0,93	0,40
* According to the National Bank of the Republic of Kazakhstan, the US dollar exchange rate as of January01, 2020 was384,2 tenge; as of January01, 2019– 381,18tenge.						
Note–prepared by the authors based on (Iskakov et al., 2020, 197)						

As judged by the data from the table,the investment funds dominate in the structure of institutional investors of the republican market, and during the period under review, their number decreased by 36 units, amounting to 223 units in 2019.

The second place is occupied by the brokers and dealers (professional players of the securities market). In 2019,their number constituted 83 persons, having decreased by 20 units compared to 2018.

The last place in the structure is occupied by the institutional investors, excluding the Integrated Accumulative Pension Fund and the representatives of the banking sector; however, in the securities market of Kazakhstan, this group is characterized as the most stable and most capitalized one. For the period under review, the banking sector has expanded its presence in the market both in absolute and relative terms. In 2019,the number of banking participants in the market increased by one unit and amounted to 20 participants. The size of the investment assets of the bank has also increased, having constituted11,71 bln US dollars in 2019.

As of January 01, 2020, the total capitalization of the market of non-public securitiesincluded in the official listing of KASE constituted11 650,9 bln tenge (78,48 bln US dollars), having increased on bonds by 2 times for 2019 (from 1 520,8 bln tenge as of January 01, 2019 to 3 141,7bln tenge as of January01, 2020), on shares – by 2,3 times (from 3 756,2 bln tengeas of January01, 2019 to 8 506,2 bln tengeas of January01, 2020), which can be judged in detail by the figure below.

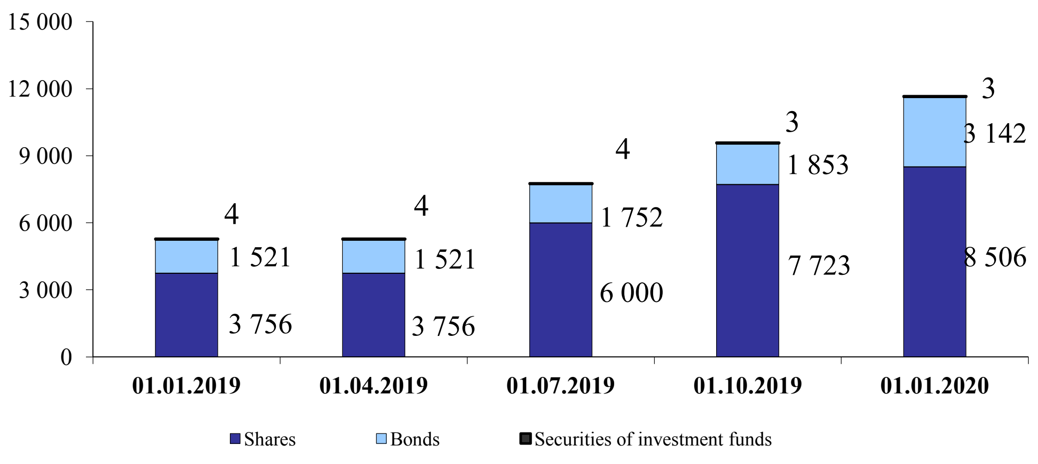

Figure3. Dynamics of change in the KASE capitalization, bln tenge.

Note–prepared by the authors based on (Agal'tsova, 2020, 119)

As of January 01, 2020, the total market capitalizationon non-public securities included in the official listing of KASE increased by 2,2 times compared to the same period in 2019 (Fig. 3).

The growth in the capitalization of the stock market in absolute terms influenced the increase in the ratio of this indicator to GDP (Fig. 4).

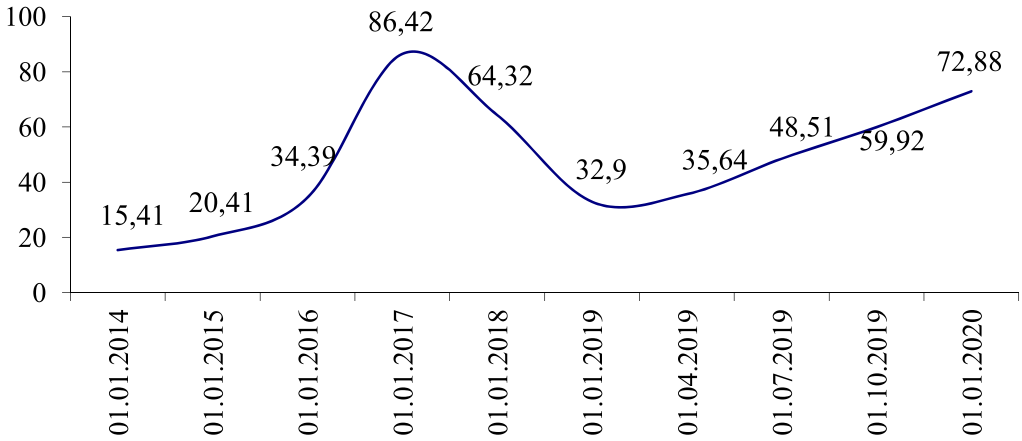

Figure4. KASE capitalization toGDP, %.

Note – prepared by the authors based on (Agal'tsova, 2020, 153)

The mainrelative share of securities admitted to trading at KASE corresponds to the debt securities – 71,5 % (249 issues), by sector shares and securities of investment funds — 28,2 % (98 issues) and 0,3 % (1 issue),respectively.

As judged by the data of table 2, the lowest relative share in the structure of the registered securities of security issues corresponds to the sector“Securities of investment funds”. For the period under review, the number of issuers increased by 3 units and constituted 58 as of January 01, 2020. However, despite the growth in the number of issuers, the number of issues in 2019 decreased significantly and constituted 182 issues as of January 01, 2020. It is 23 issues less than the respective indicator of 2018.

Table 2. Volume and number of the securities issues registered by theregulator of the securities market

Types of securities	Number of issuers		Number of issues		CB volume of issue (bln US dollars)	
	As of January01, 2019	As of January01, 2020	As of January01, 2019	As of January01, 2020	As of January01, 2019	As of January01, 2020
Sector“Shares”	2 240	2 196	2 240	2 196	–	–
Sector“Debt securities”	195	212	347	395	14,48	35,48
Sector“Securities ofinvestment funds”	55	58	205	182	–	
Total	2 490	2 466	2 792	2 773		
Note–prepared by the authors based on (Karagusova, 2020, 55)						

The current situation shows that second-tier banks, insurance funds and other financial and credit institutions, as well as enterprises and private investors, are not yet taking active steps, although they have reserves. To overcome this barrier, the state apparatus should ensure the favourable investment climate that would guarantee the potential investors the transparency of the market, its reliability and safety to stimulate the activity of the listed financial institutions as main operators in the republican securities market.

It should also be noted that, considering the fact that our Republic has joined the Common economic union with the Russian Federation, the cooperation between the stock exchanges of Kazakhstan and Russia seems quite promising and mutually beneficial. Kazakhstan has “long” money – money of insurance funds and the Integrated Accumulative Pension Fund. But, due to the peculiarities of the legislative control, this money does not work to the full extent, which indirectly hinders the development of the securities market. The merger of the securities markets of two states could give the popular Russian “short” money, which is more speculative and capable of reviving trade, to the domestic market (Golovnin, 2016, 44).

In general, the results of the conducted analysis allow to highlight the following problems in the system of government regulation and development of the security markets:

– limited market liquidity;

– deficiencies in laws and other regulatory documents governing the activities of the market subjects;

– lack of high-quality financial instruments;

– low qualification of JSC heads in the field of corporate finance, who do not yet see an alternative to bank loans in the securities market;

– principal shareholders are afraid of losing control over the enterprise if it enters the stock market, refusal of public IPO;

– insufficient transparency of listed companies.

– lack of an effective mechanism for the protection of the rights and interests of investors, in particular, portfolio and small non-professional ones.

For the further development of the domestic securities market, the state, represented by the authorized authorities, shall take the following steps:

1. Expand the list of marketable and reliable financial instruments traded in the domestic stock market.

2. Upgrade the quality of provision of the financial services by improving the work methods of professional players using modern IT technologies while upgrading the quality of the risk management systems (Luque, Páscoa, 2014, 212-213).

3. Increase the responsibility of the issuers and their officials for violation of the terms of issue and placement of bonds.

4. Raise the requirements to the terms of issue of bonds asmarketablefinancial instruments.

5. Establish the issuer's obligation that will make it legally bound to repay the debt to the investors by redeeming the placed bonds at the highest price between the par value taking into account the accumulated compensation and fair market value of a bond;

6. Extend the functions and enhance the roles of a bond holder representative;

7. Assign the additional functions to the Kazakhstan stock exchange in order to monitor the issuers and members of the stock exchange.

Discussion

Despite the significant scientific groundwork on this problem, the issues of increasing the resilience of the domestic securities market to crisis and the activity of people in its secondary market remain understudied. However, in general, the results of assessing the current market state confirm the correctness of the author's hypothesis that the shift of focus from the issues of legal support of the system of government regulation of the securities market of the Republic of Kazakhstan to the problem of primary transparency and reliability of the market from the point of view of potential investors will serve as an evolutionary trigger of its intensive development.

The reliability of the scientific provisions of the paper is confirmed by the methodological consistency with the basic concepts of the leading domestic and foreign scientists and economists, the representativeness of the statistical sampling, the use of the procedure of theoretical interpretation of the basic terms in the paper (government regulation, securities market, investment climate, evolutionary trigger, intensification of economic development, market capitalization, institutional investors, and financial literacy), as well as the methods adequate to the subject, object, goals, and tasks of the study.

Conclusion

The synthesis of the processed volume of information allows to make a conclusion that as a result of the study, the authors:

– studied the peculiarities of the securities market as an object of government regulation;

– examined the infrastructural support of the system of government regulation of the security market of the Republic of Kazakhstan;

– analyzed and assessed the current state of the security market of the Republic of Kazakhstan;

– studied the systemic problems of government regulation and development of the market;

– developed and substantiated scientifically the promising areas of reforming the republican securities market and the system of its government regulation.

The conclusions and proposals made by the authors can be used by the central and local executive authorities during the development of sectoral strategic programs for reforming the system of government regulation and development of the Republic of Kazakhstan.

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Р.Қ. Елшибаев, С.Б. Сауранбай, А.О. Ағымбай

Қазақстан Республикасының бағалы қағаздар нарығын мемлекеттік реттеу

Аңдатпа

Мақсаты: Қазақстан Республикасының бағалы қағаздар нарығын дамытудың перспективалық бағыттарын айқындау және оны мемлекеттік реттеу жүйесін реформалауды анықтау.

Әдісі: Зерттеуде эмпирикалық, субъективті-объектілік, жүйелік, дедуктивті және салыстырмалы талдау әдістері пайдаланылды. Осы әдістердің әрқайсысы тиісті кезеңдік зерттеу мәселелерін шешу үшін өзінің функционалдық мүмкіндіктері мен қабілеттеріне сәйкес қолданылды.

Қорытынды: Авторлар жүргізген зерттеу нәтижесінде:

– мемлекеттік реттеу объектісі ретінде бағалы қағаздар нарығының ерекшеліктері зерттелді;

– Қазақстан Республикасының бағалы қағаздар нарығын мемлекеттік реттеу жүйесін инфрақұрылымдық қамтамасыз ету қаралды;

– еліміздің бағалы қағаздар нарығының ағымдағы жағдайы бағаланды;

– мемлекеттік реттеу мен нарықты дамытудың жүйелі проблемалары зерттелді;

– Қазақстан Республикасының бағалы қағаздар нарығын және оны мемлекеттік реттеу жүйесін реформалаудың перспективалық бағыттары әзірленіп, ғылыми негізделді.

Тұжырымдама: Қазақстан Республикасының бағалы қағаздар нарығын мемлекеттік реттеу жүйесін құқықтық қамтамасыз ету проблемаларынан экономикалық интеграция және жаһандық коронадағдарыс жағдайларында нарықтың бастапқы ашықтығы мен сенімділігі проблемасына ауыстыру мынадай мақсаттарға қол жеткізуге мүмкіндік берді:

– корпоративті эмитенттердің жаңа IPO жүргізу жағдайында акциялар нарығының ЖІӨ капитализациясы екі есе артады;

– ААҚО Азиядағы он жетекші қаржы орталықтарының қатарына кіреді;

– көптеген тұтынушылар тобының қаржылық қызметтерге қолжетімділігі қамтамасыз етіледі;

– нарықтың қатысушыларының жинақтарының сақталуы мен әлеуетті инвесторлардың мүдделерінің қорғалуы, халықтың қаржылық сауаттылығының жоғарылауы қамтамасыз етілетін болады.

Кілт сөздер: мемлекеттік реттеу, бағалы қағаздар нарығы, инвестициялық климат, нарықтық капиталдандыру, Қазақстан қор биржасы (KASE), институционалдық инвесторлар, нарықтың кәсіби қатысушылары, қаржылық сауаттылық.

Р.Қ. Елшибаев, С.Б. Сауранбай, А.О. Ағымбай

Государственное регулирование рынка ценных бумаг Республики Казахстан

Цель: Определение перспективных направлений развития рынка ценных бумаг Республики Казахстан и реформирование системы его государственного регулирования.

Методы: В исследовании использованы методы эмпирического, субъектно-объектного, системного, дедуктивного и сравнительного анализа. Каждый из этих методов применялся адекватно своим функциональным возможностям и разрешающим способностям для решения соответствующих стадийных исследовательских задач.

Результаты: В результате проведенного авторами исследования:

– изучены особенности рынка ценных бумаг как объекта государственного регулирования;

– рассмотрено инфраструктурное обеспечение системы государственного регулирования рынка ценных бумаг Республики Казахстан;

– проведена оценка текущего состояния рынка ценных бумаг страны;

– исследованы системные проблемы государственного регулирования и развития рынка;

– разработаны и научно обоснованы перспективные направления реформирования рынка ценных бумаг Республики Казахстан и системы его государственного регулирования.

Выводы: Смещение акцента с проблем правового обеспечения системы государственного регулирования рынка ценных бумаг Республики Казахстан на проблему первичной прозрачности и надежности рынка в условиях экономической интеграции и глобального коронакризиса позволит достичь следующих целей:

– капитализация рынка акций к ВВП удвоится, если новые IPO будут проводиться корпоративными эмитентами;

– РФЦА войдет в группу десяти ведущих финансовых центров Азии;

– будет организован доступ к финансовым услугам для широкого круга потребителей;

– будут обеспечены повышение финансовой грамотности населения, защита интересов потенциальных инвесторов и сохранность сбережений участников рынка.

Ключевые слова: государственное регулирование, рынок ценных бумаг, инвестиционный климат, рыночная капитализация, Казахстанская фондовая биржа (KASE), институциональные инвесторы, профессиональные участники рынка, финансовая грамотность.

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The works dedicated to the issues of government regulation and development of the securities market in Kazakhstan include the studies byG. Karagusova (Karagusova,2020), B. Yesenov (Yesenov,2019), S.V. Agaltsova (Agaltsova, 2020), etc. It should be noted that most of the mentioned papers mainly consider ways to improve the well-being of the people by creating a favorable investment climate in the country. They also cover other important issues, but in general, we can speak of the lack of specific proposals that can fundamentally change thecurrent situation in thesecurities market.

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