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RESEARCH ARTICLE
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Factors Influencing the Increase in Online Purchases by Rural Women after the COVID-19 in Kazakhstan

Anel Kireyeva[1] | **Akan Nurbatsin**[2]*

[1] Institute of economics of the Committee of science MSHE RK, Almaty, Kazakhstan

[2] Kenzhegali Sagadiev University of International Business, Almaty, Kazakhstan

Corresponding author:
Akan Nurbatsin – PhD candidate, Kenzhegali Sagadiev University of International Business, Almaty, Kazakhstan.
Email: nurbatsin.a@uib.kz

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Abstract

The article examines the role of e-commerce in the lives of rural women and the impact of the Covid-19 pandemic on online shopping. The relevance of this topic is high, especially for a developing country like Kazakhstan, which does not have developed infrastructure networks for connecting to the Internet and transporting goods and is supported by scientific research in recent years on women's behavior on the Internet. The article's primary purpose is to study the influence of factors on online purchases of rural women after the pandemic in Kazakhstan. The current situation with e-commerce in rural areas was discussed in the introduction. The literature review analyzes the work of scientists who have studied various factors affecting the purchase of women online. A survey was conducted among rural women in Kazakhstan to achieve the purpose of the research. The results obtained were analyzed using a regression model for categorical data. As a result, the influence of various factors on the online purchases of rural women was determined. The summary was drawn on the influence of factors such as doing business from home, marital status, the literacy level of using the Internet and gadgets, the time needed to make a purchase online, etc. In conclusion, scientific and practical recommendations were made to improve the situation with online purchases of rural women in Kazakhstan.

Keywords: Rural Women, Online Purchases, Pandemic, COVID-19, Women Shopping, Categorical Variables, Business

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1. INTRODUCTION

Today E-commerce is becoming increasingly popular every year with the development and increase in the number of communication devices, smartphones, and tablets that have become part of the life of a modern person. Consequently, many enterprises have started to transfer their businesses in whole or in part to an online platform to meet current trends. Retail trade is experiencing a decline, particularly after the COVID-19 pandemic worldwide, including in Kazakhstan, where, according to data for 2020, the fall was 4.1 percent. On the contrary, the development of online commerce has become the primary beneficiary of the current situation with lockdowns and self-isolation. The use of online platforms during the pandemic increased the volume of purchases on the Internet by 57 percent in Kazakhstan, which in turn gave impetus to the growth of the number of non-cash payments in the country. Nevertheless, users face some problems with online purchases, mainly due to the speed of delivery, technical issues, lack of quality assurance of the goods, etc.

It should be noted that in Muslim countries like Kazakhstan, the role of a rural woman is often reduced to the role of a housewife because women are more likely to take on the responsibilities of caring for family and children, especially in separated regions and rural areas. All this could not but affect the economy of the country, the region and the village. Moreover, this condition leads to increased differentiation of the population in terms of living standards, negatively affecting society's social atmosphere and human development indicators. In addition, many rural women entrepreneurs, concentrated in low-income and low-growth sectors, face problems and various forms of discrimination. These obstacles include limited access to vocational education; combining family responsibilities and running a business; low funding for women's businesses, cultural barriers, etc. In addition, the low level of skills, knowledge and awareness very often limits the activities of rural women.

In rural areas of Kazakhstan, there is a steady decline in the population due first to natural decline, migration outflow associated with a low quality of life, and access to resources, including the Internet. Rural women have similar spiritual values, social experience and lifestyles as urban women. This paper discusses an essential part of the problems associated with limited access to resources, namely digital resources and the Internet. Firstly, the impact of the COVID-19 pandemic on rural women's online shopping, as noted above, the pandemic has significantly increased the activity of online shoppers around the world due to restrictions. Secondly, in the research work, particular importance is attached to the level of education, marital status and earnings of rural women in the country. These factors are not only of practical importance, which can use for proper targeting, but also allow government agencies to conclude the development of gender policy in the country. Thirdly, this article contributes to the direction of developing opportunities among rural women in Kazakhstan.

Unlike cities, rural areas have a massive potential for the growth of e-commerce. To solve practical issues for the development of online trading, it is necessary to comprehensively analyze the current situation. Of course, the difficulties women face in rural areas when buying online goods of various categories should be identified and considered. Historically, in Kazakhstan, before independence, most of the population

lived in rural areas, and the level of literacy in using gadgets and the Internet among farmers was low. The construction of extensive infrastructure, especially roads and railways, postal services, etc., is vital in stimulating online commerce development among rural women.

It should be noted that the impact of restrictive measures that have paralyzed the ordinary life of Kazakhstanis since March 2020, contributing to the purchase of essential goods via the Internet. Strict isolation due to the increase in deaths and the spread of the virus has led to the closure of extensive retail facilities in almost all regions of the country. Summarising all of the above, this research paper raises the main research question:

RQ1. What factors significantly affect rural women's access to digital resources after the COVID-19 pandemic?

The research work consists of five main chapters:

(1) The introduction substantiates the relevance and significance of online purchases, especially during and after the COVID-19 pandemic, and describes the situation with e-commerce in Kazakhstan;

(2) The literature review is presented in two directions: first, it is the influence of COVID-19 on online purchases, and the second concerns factors influencing consumer decisions in online shopping. The situation is also considered in the gender context;

(3) Data from a representative sample of women's questionnaires are described in figures and tables, and existing works of a fundamental and applied nature justify the methodology;

(4) Quantitative indicators of the constructed model are discussed in the results, and analysis and interpretations are given on them;

(5) In conclusion, the main conclusions and further areas of research are presented.

2. LITERATURE REVIEW

Scientific research on the impact of the COVID-19 pandemic on online shopping and the main factors influencing consumer behavior on the Internet, particularly among women, has increased significantly in recent years. Some studies focus on researching the digital environment, digital tools, and online platforms (Ajumobi & Kyobe, 2017; Olsson & Bernhard, 2021). Numerous works attributed discrimination to low educational attainment and lack of skills, including ICT skills (Peltier et al., 2009; Michaelidou et al., 2011). Other studies are directed at studying digital skills and the application of digital technologies, including social networks and platform design (Guo et al., 2020; Huang et al., 2020).

Thus, inequality in access to resources, opportunities for use, and ways of interacting with ICT (information and communication technologies) have been called the digital divide for quite some time. The primary motivation for studying women's participation in ICT is the continued existence of gender stereotypes between and within different professions. We consider it essential to discuss the ways of gender inequality in biological, social, and economic qualities, which affects all previous studies. For example, Shaw et al. (2022) compared the impact of the pandemic on online shopping in the world's largest economies among four categories of respondents and by gender. According to the findings, the pandemic has significantly increased online purchases in

the countries reviewed, and many consumers have constantly begun to make Internet transactions. In addition, after the restrictive measures were completed, slightly less than half (about 42 percent) approved that they would increasingly buy online. Global and local trends were discussed in Sirimanne (2021), where movements are divided into before and during the COVID-19 pandemic. According to the author, the impact of the pandemic is much higher on the world economy than the 2008 financial crisis, and forecasts for global GDP growth have gone into negative territory due to the pandemic. The difference among the regions stands out significantly. Among the sectors of the economy, the ICT industry has shown the highest growth due to the use of various remote communication services (videoconferencing), various entertainment services, and, of course, e-commerce.

Kim (2020) studied the impact of COVID-19 on businesses and consumers, and he concluded that e-commerce had increased significantly. Services such as "Zoom" and "Google meet" have increased their revenues during lockdowns. Considering the company's employees, he argues that the restrictions that led to the fact that workers stopped going to work. The digital transformation of workplaces became a necessity, which is confirmed by the work of other scientists (Neeley, 2020; Gardner & Matviak, 2020).

Recent studies that investigate the main factors influencing buyers' decisions when buying online confirm that online product reviews and availability of information have a direct relationship with online shopping (Fernandes et al., 2021). They concluded that consumers' scale of online susceptibility directly affects online shopping. The abrupt transition from offline shopping to online and gender differences, income gap, and different attitudes to COVID-19 were considered in the scientific work of Shen and others (2022). They claim that the pandemic affected purchases of consumer goods due to restrictive measures and lockdowns. Therefore, based on the logit model and a sample of 310 respondents in the United States, they justified the high frequency of online purchases. Jackson and others (2001), Morahan (1998), and Jen-Hung and Yi-Chun (2010) examined the difference in behavior when buying online and using ICT by gender breakdown. The analyses showed a gender difference in the use of the Internet and computer and in the motives for buying online. For example, women are more likely to base their purchases on fashion, value, etc. In addition, it was concluded that, in general, men use the Internet much more often than women.

The research shows that economic transformations in society over the past decades have led to a significant change in the position of women. The literature on this topic is not limited only to the scientific works considered. In addition, it can be stated that there are practically no works that have considered the problems of access to digital resources for rural women. In Kazakhstan, the chosen topic has not been considered as s independent scientific research. Moreover, the scale of the gender wage gap varies significantly depending on the region (Kireyeva & Satybaldin, 2019, Satpayeva et al., 2020).

More than a quarter of working women are employed in the agricultural sector, and more than 80 percent work on family farms. Despite this, their access to land ownership, learning opportunities, and even digital resources are limited. Based on the provided literature review, current research studies the following links.

Firstly, there is a link between rural women's access to digital resources and opportunities in the labor market. Secondly, on the analysis of participation, costs, and benefits of access to digital resources for rural women in Kazakhstan and identification of factors influencing this process. Therefore, the following proposals were formulated:

Proposition 1 (one): Rural women of Kazakhstan have unlimited access to digital resources that motivated the use of various online markets.

Proposition 2 (second): Rural women in Kazakhstan have limited access to digital resources, and this is influenced by certain economic, social, and other factors.

The study aimed to identify the most common problems for rural women, while the shortcomings needed more in-depth analysis. The second part of the study included the identification of barriers to the development of rural women.

3. METHODOLOGY

The study will be conducted based on structural and functional approaches using a wide range of analysis and evaluation methods. To answer the research questions, female respondents from all regions of Kazakhstan were interviewed. As a result, it got answers from 265 women with different levels of wealth and education. The survey was conducted between September 10 and October 10, 2022, as part of the research on the grant project on rural women's access to resources. The basic questions for determining the respondent's social status included age, level of education, marital status, region of residence, place of work, and salary level.

The methodology for this research work was chosen after thoroughly analyzing similar scientific papers and the data type. Random-effects and cross-section fixed-effects panel regressions were used by Szász et al. (2022) to determine the relationship between changes in online retailers' sales and several factors influencing this, including residential mobility and government stringency using Eurostat data. Milah et al. (2022), studying the determinants influencing the behavior of online shoppers during the COVID-19, partial least square structural equation modeling (PLS-SEM) was used to analyze a survey of respondents from Bangladesh. This methodology allowed them to find out that positive reviews on the Internet and the opinion of significant media personalities play a great role in the behavior of online buyers.

Linear regression with categorical predictors will determine the main factors' influence on online shoppers' behavior. The regression model will look like this:

$$Covimp_i = \beta_0 + \beta_1 \text{Intprof} + \beta_2 \text{Gadprof} + \beta_3 \text{Busihome} + \\ + \beta_4 \text{Maristat} + \beta_5 \text{Socinet} + \beta_2 \text{Timbuy} + \varepsilon_i \quad (1)$$

Analyzing the applied methods of several other scientists (Gruntkowski & Martinez, 2022; Ismajli et al., 2022; Svatosova, 2022) in which respondents from Germany, Kosovo, and the Czech Republic were also considered, in this research paper, two models were selected to answer the questions posed. The model implies applying the Stata survey analysis to categorical data of the variable determining the impact of COVID-19 on female respondents in Kazakhstan. To determine the factors influencing consumer behavior on the Internet after COVID-19, many questions were asked, for example, the

level of literacy in using gadgets, the Internet, etc. Table 1 shows descriptive statistics of all variables used in the analysis.

TABLE 1. Descriptive statistics of categorical variables

No.	Variable name	Questions asked	Answer options
1	*Intprof*	What is your level of Internet proficiency?	1) Advanced 2) Intermediate 3) Low
2	*Gadprof*	What is your level of smartphone/tablet/computer proficiency?	1) Advanced 2) Intermediate 3) Low
3	*Busihome*	Do you run your business from home?	1) I do not work 2) Working in the office 3) on every side 4) part of the work is from home 5) work from home
4	*Marist*	Specify your marital status	1) Divorced | 2) Married 3) Not married
5	*Socinet*	Do you use the recommendations of social networks when choosing a store?	1) No 2) Recommendation of friends 3) Sometimes 4) Yes
6	*Timbuy*	Approximately how long does it take you to buy online?	1) 30 minutes 2) Hour 3) Less than 15 minutes 4) More than an hour
7	*Covimp*	How has the number of online purchases changed after the pandemic?	1) Decreased 2) Has not changed 3) Increased
Note: Compiled by authors			

Ethical considerations.

This part gives a summary of ethical issues related to qualitative research. This part is intended to provide context for discussion in subsequent modules on advocacy procedures for survey participants. Qualitative research and other research usually undergo formal training in research ethics (according to the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research). Research ethics significantly deal with the interaction between researchers and their study respondents (Schensul & LeCompte, 1999; Pope & Mays, 2000).

Overall, data collection activity requires the respondent's individual informed consent. Using qualitative data to justify the need for change is well-known. Accordingly, it is essential to provide a high level of awareness with standard indicators concerning women involved in the survey.

4. FINDINGS AND DISCUSSION

In Figure 1, one can observe the number of women who conduct business from their homes in the context of marital status. It should be noted that all categories of marital status divorced, married, and unmarried do not work at all. Interestingly, about 37 percent of divorced women work from home, while for available women, this figure is only 9.5 percent.

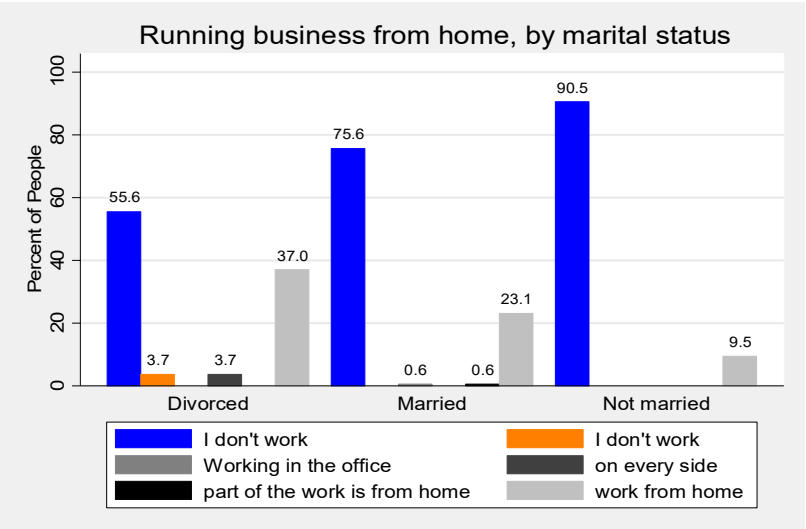

FIGURE 1. Conducting work from the household depending on marital status
Note: Survey data

Questions were asked about the type of products respondents buy to study women's online behavior. Analyzing the data, you notice that women mostly buy clothes online, with 71 responses, or 26.1 percent. Clothing is followed by household goods (20.22 percent). Also, 41 respondents said that they buy books online the most. Another critical factor in women's behavior on the online platform is the frequency of purchases. According to the survey, 47.33 percent of women shop online once a month, while 43.88 percent purchase goods 1-3 times a year. Table 2 shows the number of respondents by their level of education and income.

TABLE 2. Number of respondents by the level of education and income

Salary range	Higher education	Incomplete higher education	Master's degree	No education	Second (third, etc.)	Secondary education
Over 400,000 tenge	11	1	8	0	4	0
from 100,000 to 200,000 tenge	41	3	32	0	5	2
from 200,000 to 400,000 tenge	35	3	25	0	2	5
from 50,000 to 100,000 tenge	21	2	7	0	0	8

up to 50,000 tenge	9	1	5	1	0	3
Total	117	10	77	1	11	18
Note: Compiled by authors						

The main results of ANOVA of linear regression for categorical variables are shown in Table 3. As we can see, the sum of the squares of the residuals was 112.28 for a total sample of 264 observations. Among the regions of Kazakhstan, the most respondents are in the city of Almaty at 46.45 percent, followed by the Almaty region with 17.38 percent and Astana with 12.77 percent. Table 3 shows ANOVA results.

TABLE 3. ANOVA table

Source	SS	df	MS	Parameter	Value
Model	13.344	14	.953	Number of obs	264
				F (14, 249)	2.11
Residual	112.287	249	.450	Prob>F	0.011
				R-squared	0.106
Total	125.632	263	.477	Adj R-squared	0.056
				Root MSE	.671
Note: Compiled by authors					

From the point of view of the consistency of the results obtained, it can be concluded that only five independent variables can be interpreted, considering that they have a p-value below 10 percent. In addition, Figure 2 shows hypotheses tests for parameters.

```
( 1)  2.Intprof = 0
( 2)  3.Intprof = 0
( 3)  2.Gadprof = 0
( 4)  3.Gadprof = 0
( 5)  4.Busihome = 0
( 6)  5.Busihome = 0
( 7)  6.Busihome = 0
( 8)  2.Maristat = 0
( 9)  3.Maristat = 0
(10)  3.Socinet = 0
(11)  4.Socinet = 0
(12)  2.Timbuy = 0
(13)  3.Timbuy = 0
(14)  4.Timbuy = 0

      F( 14,   249) =    2.11
           Prob > F =    0.0117
```

FIGURE 2. Hypotheses tests for parameters

Note: Compiled by authors (calculated in Stata 14 software)

According to the regression results in table 4, the low level of Internet literacy has a positive effect on increasing women's online purchases after the COVID-19 pandemic, with a coefficient of 0.76. This can be explained by the fact that during lockdowns, women improved their network skills, leading to new online shopping habits. In addition, the increase in online purchases after the COVID-19 pandemic may be because women with low Internet literacy have opened up new opportunities to purchase consumer goods for their homes without risking their lives. Table 4 shows Results of Linear regression.

TABLE 4. Results of Linear regression with categorical predictors

Variables	Coefficients	Std.Err.	t	P>|t|	[95% Confidence Interval]	
Intprof						
Intermediate	.138	.122	1.13	0.260	-.103	.379
Low	.765	.399	1.92	0.057	-.021	1.552
Gadprof						
Intermediate	-.039	.119	-0.33	0.742	-.274	.195
Low	-.618	.628	-0.98	0.326	-1.855	.618
Busihome						
on every side	.879	.691	1.27	0.204	-.481	2.241
part of the work is from home	.870	.684	1.27	0.205	-.477	2.217
work from home	.347	.110	3.15	0.002	.130	.564
Maristat						
Married	.085	.153	0.56	0.578	-.217	.388
Nor married	.274	.162	1.69	0.092	-.045	.594
Socinet						
Recommendation of friends	0	(omitted)				
Sometimes	.865	.403	2.15	0.033	.071	1.659
Yes	.175	.107	1.64	0.103	-.035	.385
Timbuy						
Hour	-.052	.124	-0.42	0.673	-298	.192
Less than 15 minutes	.259	.109	2.37	0.019	.043	.475
More than an hour	-.037	.118	-0.32	0.175	-.270	.194
cons	1.945	.189	10.25	0.000	1.571	2.318
Note: Compiled by authors						

Women who work from home began to buy more after the pandemic, as we can see from the regression model with a coefficient of 0.347. The positive effect of this variable on the increase in online purchases after the pandemic by women can be explained by the fact that many businesses in Kazakhstan switched to online platforms, and women who work from home began to conduct transactions over the Internet more. Nevertheless, it is

necessary to remember that interaction on the Internet is not exceptional for women working from home since they have to deal with it daily. Not married women also significantly impact online purchases after COVID-19, with a coefficient of 0.274. This suggests that respondents began to buy more because, for unmarried women, online purchases are mainly accompanied by the acquisition of clothing and fashion items rather than consumer goods for the family.

Female respondents who use recommendations on social networks also began to shop online more after the pandemic. According to the regression analysis, they significantly impact this, with a coefficient of 0.865. This can be explained by the fact that the spread of businesses through social networks in Kazakhstan, especially Instagram, leads to consumers getting used to them. They are very convenient to use as they allow getting video and photo materials about goods directly from sellers. Women who shop much faster in just under 15 minutes also significantly impact the number of online purchases. Table 5 shows the results of marginal predictions.

TABLE 5. Results of marginal predictions

Variables	Delta-method					
	Margin	Std. Err.	t	P>|t|	[95% Confidence Interval]	
Intprof						
Advanced	2.344	.059	39.44	0.000	2.227	2.461
Intermediate	2.482	.090	27.34	0.000	2.304	2.661
Low	3.110	.389	7.98	0.000	2.342	3.877
Gadprof						
Advanced	2.424	.061	39.55	0.000	2.303	2.545
Intermediate	2.385	.085	27.97	0.000	2.217	2.553
Low	1.806	.619	2.91	0.004	.585	3.026
Maristat						
Divorced	2.262	.142	15.86	0.000	1.981	2.543
Married	2.347	.056	41.75	0.000	2.237	2.458
Nor married	2.536	.073	34.57	0.000	2.392	2.681
Timbuy						
30 minutes	2.352	.070	33.55	0.000	2.214	2.491
Hour	2.300	.103	22.29	0.000	2.096	2.503
Less than 15 minutes	2.612	.081	31.88	0.000	2.451	2.774
More than an hour	2.315	.093	24.85	0.000	2.131	2.498
Note: Compiled by authors						

As we can see, the results of marginal effects predictions show a positive effect in almost all variables. It should be noted that the model did not include the place of doing business and using recommendations in social networks. The p-value in all factors is statistically significant, so the data obtained can be interpreted in the following order. For divorced women, their increase by 2.26 percent points led to a rise in purchases after the COVID-19 pandemic by women in Kazakhstan by one percent point. Also, in figure 3

shows the predictive margins of Timbuy with 95 percent, and the Predictive margins of Intprof with 95 percent.

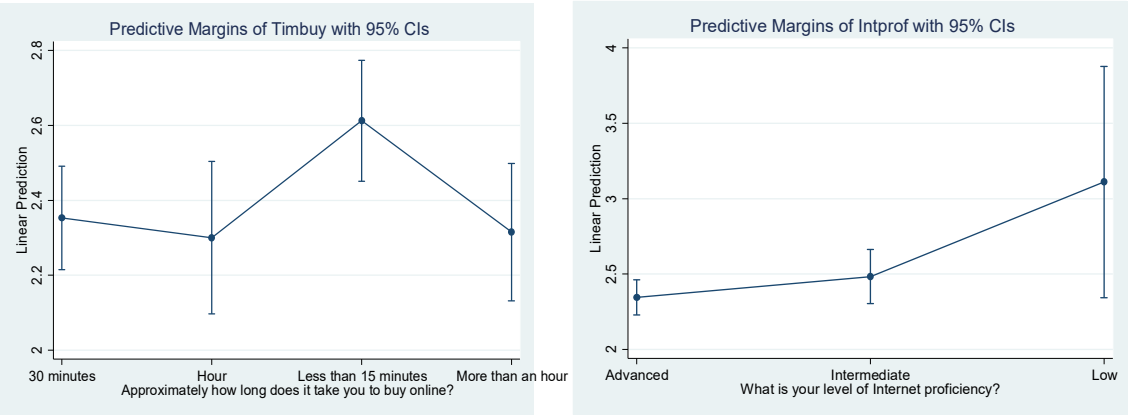

FIGURE 3. Predictive margins of Timbuy and Intprof with 95 percent

Note: Compiled by authors

We see that, as a value of variable Timbuy has no apparent direct relationship with the increase of online purchases. The highest value goes to when women decide to make purchasement in less than 15 minutes (2.6), while when they spend one hour, it shows the lowest predictive margin with 95% CIS approximately 2.3. It is interesting to note the impact of Internet proficiency of women on online purchases, as we see if the proficiency level decreases (low), it is more likely that online purchases after Covid-19 by women increase.

5. CONCLUSIONS

In this paper, the influence of various factors of the respondents of women in Kazakhstan on the change in the number of purchases after the COVID-19 pandemic was investigated. The work used data from a sociological survey conducted on the territory of Kazakhstan among women. The results show that factors such as Internet literacy, family status, working from home, the amount of time to buy online and using recommendations in social networks significantly impact online purchases. E-commerce occupies an essential place in the lives of modern people. In particular, after COVID-19, they began to buy more on the Internet. It allows buyers to reduce the time for searching for and choosing goods. In addition, rural women will have access to world-class goods and can purchase what they cannot find in their localities. For the further development of this segment of the economy, it is certainly necessary to determine the factors that influence the purchasing behavior of women in rural areas. Consequently, the results of this study show the importance of various determinants of buyers' behavior.

Women who work from home began to buy more after the pandemic, as we can see from the regression model with a coefficient of 0.347. The positive effect of this variable on the increase in online purchases after the pandemic by women can be explained by the

fact that many businesses in Kazakhstan switched to online platforms, and women who work from home began to conduct transactions over the Internet more. Not married women also significantly impact online purchases after COVID-19, with a coefficient of 0.274. This suggests that respondents began to buy more because, for unmarried women, online purchases are mainly accompanied by the acquisition of clothing and fashion items rather than consumer goods for the family. Female respondents who use recommendations on social networks also began to shop online more after the pandemic. According to the regression analysis, they significantly impact this, with a coefficient of 0.865. This can be explained by the fact that the spread of businesses through social networks in Kazakhstan, especially Instagram, leads to consumers getting used to them.

To improve rural women's access to uninterrupted and high-quality Internet for the country's governing bodies, it is necessary to take concrete measures. It should be noted that the activity of rural women in online shopping significantly increases the liquidity of many product categories. Another critical issue for Kazakhstan is the infrastructure development for the delivery of purchased goods on the Internet. Therefore, as a scientific and practical recommendation to increase the activity of rural women in online shopping in the post-pandemic period, we can offer the following: (1) training rural women in the literacy of using the Internet and various gadgets, since it will be challenging to develop this direction without proper knowledge of use; (2) easing legislation for those who sell their goods and services to rural women, including tax preferences, etc.; (3) the development of electronic payment systems in online purchases plays a significant role; therefore, account opening and transaction processes should be simplified as much as possible for rural women; (4) of course, the development of logistics, including postal services, which can potentially become a tool for boosting rural women's purchases on the Internet.

In conclusion, the following conclusions can be drawn. Firstly, e-commerce in Kazakhstan has changed considerably due to the COVID-19 pandemic, and it has become a powerful catalyst; secondly, not all categories of goods began to show positive dynamics, as some buyers started to purchase fewer clothes and expensive appliances. Thirdly, new technologies were introduced, and the logistics industry was developed to deliver goods to customers. According to the latest forecasts, the growth of online commerce will continue and gain more popularity. And after the pandemic? While online shopping started out as a requirement amid social distancing measures and contagion fears, there may be no going back from the new normal of retail – especially now that customers see how doable, easy, and fast it is, now that they've been forced to do it.

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AUTHOR BIOGRAPHIES

Anel A. Kireyeva - PhD, Associate Professor, Head of Department, Institute of economics of the Committee of science MSHE RK, Almaty, Kazakhstan. Email: kireyeva.anel@ieconom.kz, ORCID ID: https://orcid.org/0000-0003-3412-3706.

***Akan S. Nurbatsin** – PhD candidate, Head of Center, Kenzhegali Sagadiev University of International Business, Almaty, Kazakhstan. Email: nurbatsin.a@uib.kz, ORCID ID: https://orcid.org/0000-0001-5390-5776.

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The Agricultural Sector in the Republic of Kazakhstan: Analysis of the State, Problems and Ways of Solution

Saltanat Suieubayeva[1]* | **Oxana Denissova[1]** | **Aliya Kabdulsharipova[1]** | **Aylin Idikut Ozpence[2]**

[1] D. Serikbayev East Kazakhstan Technical University, Ust-Kamenogorsk, Kazakhstan

[2] Pamukkale University, Denizli, Turkey

Corresponding author:
Saltanat Suieubayeva - candidate of economic sciences, D. Serikbayev East Kazakhstan Technical University, Ust-Kamenogorsk, Kazakhstan.
Email: suyeubaeva@mail.ru

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Abstract

The main objectives of the economic security of the country is to create competitive industries to meet the needs of the population and replace imports of socially essential goods. Kazakhstan's consumer market still retains a high share of imported products, so for the sustainable development of Kazakhstan, it is necessary to form and activate potential economic growth points, primarily in the agricultural and industrial sectors. The purpose is to study the current state of the agricultural industry of the Republic of Kazakhstan and to identify trends in its development. The methods include the systematization of information from the analyzed literature sources: analysis, synthesis, structuring, and traditional ways of economic analysis, such as comparison and details. The method of analysis allows us to study various aspects of agricultural production. Systematization of the data obtained in the course of the study is carried out on the basis of the method of tables. The graphic method is used to visualize the initial data, as well as the results obtained, and their interpretation. Results – the state of the agricultural industry in the Republic of Kazakhstan was analyzed; a comparison of indicators of agricultural production output of the Commonwealth countries was carried out; key areas affecting the increase in the gross domestic product of the country by increasing the production of agricultural products were identified. It is recommended to build a model for assessing the state of problems to improve the level of development of the agro-industrial complex.

Keywords: Agro-Industrial Complex, Agriculture, Gross Domestic Product, Economy, Gross Regional Product, Livestock, Plant Growing, Food Security

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1. INTRODUCTION

The principles of rational production and consumption are one of the key topics of the Sustainable Development Agenda of the Republic of Kazakhstan for the period up to 2030. Today, most countries of the world are implementing various initiatives to create a closed-cycle economy, rational use of natural resources, environmental conservation, development of rational methods of production and sale and consumption of agricultural products. The agro-industrial complex (AIC), as a real sector of the economy remains one of the main sources of economic growth and well-being of the population of any country.

Today, the agro-industrial complex of Kazakhstan is not only one of the steadily developing sectors of the economy but also an economically attractive area for doing business. In accordance with the Strategic Development Plan of the Republic of Kazakhstan until 2025, the agro-industrial complex policy will increase agricultural productivity, deepen processing, ensure food security, and grow export-oriented, environmentally friendly agricultural products. The positive dynamics in the industry make us think about the prospects of the domestic agro-industrial complex. Especially in the near future, when the COVID-19 pandemic has blocked the processes of globalization for a long time. Thus, at a conference call of the Government, ex-Prime Minister of the Republic of Kazakhstan A. Mamin summarized: «In general, the priority task for the coming period will be the formation of a new structure of the economy based on increasing its self-sufficiency, competitive non-raw materials sector, high-quality investments, and integration into regional and global value chains.» Therefore, the issues of self-sufficiency in food and non-food products, the production of which is low or absent in Kazakhstan, come to the fore. The country spends over $500 million on food imports alone. At the same time, a huge number of programs of state subsidies, loans, and support for the agricultural sector of the country can be characterized as low-effective.

In 2021, the implementation of the National Project for the development of the agro-industrial complex of the Republic of Kazakhstan for 2021-2025 was launched, the main goal of which is to increase labor productivity in the agro-industrial complex and export processed agricultural products by at least two times compared to 2020. The total expenses for inmplementing the national project amount to 6803.3 billion tenge, of which 39.7% fall on budget funds. At the same time, after one year of the project implementation, the issues of low productivity in agriculture, availability of agricultural machinery, the effectiveness of state support tools, and others remain open.

The purpose of this article is to analyze the current state of development of the agro-industrial complex of the Republic of Kazakhstan and identify ways for its effective functioning. This will confirm the hypothesis put forward by the authors of the article. Hypothesis: the development of the agro-industrial complex in terms of modernization will increase the competitiveness of the national product, bring it to a new level, help overcome the economic crisis, contribute to the balanced development of agriculture, activate market entities, increase the interest of foreign investors in the national economy, and also increase economic security.

2. LITERATURE REVIEW

Agriculture is the main link of the agro-industrial complex of Kazakhstan, providing the population with food and the industry with raw materials. Back in 2007, in his writings, Dodobaev (2007). Described land as the main element of state wealth and the primary means of production in agriculture. Any enterprise is obliged to use the land fruitfully, take care of it, and increase its fertility. Kerimova & Kasenbayev (2021), Tireuov K.M. et al (2020) wrote about the sustainable development of agricultural enterprises while they considered their innovative development a priority. Considering foreign scientists, such as Nechaev and Paramonov (2008), spoke about agricultural specialists in their writings, they were the organizers of production who should ideally possess technological and economic knowledge. According to the authors, land is the main and specific means of production in agriculture. The final results of economic activity largely depend on the quality of agricultural land, soil fertility, and the farm's location.

Tsypkin and Lyukshinov (2007) were one of the first to emphasize that sustainable economic growth in the country's agro-industrial complex is only possible with stimulating the use of science and technology. The introduction of new technologies should be taken as a basis for the activation of all economic entities of the scientific and technical sphere of the agro-industrial complex, which undoubtedly leads to an increase in its productivity. However, as Han Jun and He Xiang (2011) rightly believe, this is costly for the agricultural environment and leads to a limitation on its sustainable development. They see a way out of this situation in a closed-cycle economy, which is also necessary and acceptable for our agriculture, as a way to solve many problems, in particular vast losses of agricultural products and production waste. Trisha et al. (2017) indicated vast losses in agriculture in European countries, suggesting a «closed-loop economy» for their reduction. This idea can be traced in the works of many foreign scientists, for example, Fraga-Corral et al (2021) write about it. Simal-Gandara (2021), as well as Suman Nandy et al (2022). However, the transition to a closed-cycle economy must be systemic, linking both production and consumption, as well as waste management. Otherwise, the primary resources extracted annually associated with economic growth are about four times higher than the resources saved through closed-cycle economy initiatives, as indicated in their study by Marco Bianchi & Mauro Cordella (2022). And it is necessary to pay special attention to this when implementing this project in our agriculture, the need for the implementation of which is indicated in the recommendation part of this article.

Another direction of solving the problems of agricultural production is the introduction of a model of vertical integration of the food supply chain, and on a contractual basis. This experience is revealed in a study by Filippo Sgroi and Vito Domenico Sciancalepore (2022). Despite many studies in agriculture of domestic and foreign scientists, the conditions and effectiveness of their implementation in developing the agro-industrial complex are insufficient. Theoretical aspects are not fully developed, and foreign experience in the development of the agro-industrial complex and improvement of regulatory legal acts are needed. It is necessary to create a model for the development of the agro-industrial complex of the country from the point of view of

economic security and, if possible, compare it with the existing one.

3. METHODOLOGY

The research methodology is based on the laws of dialectical logic and systematic and situational approaches.

The systematic approach allows the evaluation of ongoing processes comprehensively in implementing the National Project for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2021-2025.. The situational approach is due to the need for a timely assessment of the agricultural sector development in Kazakhstan and the study of the problems inherent in this market. The development of scientific and technological progress in the agro-industrial complex actualizes the constant analysis of the current situation for the timely adoption of managerial decisions by business entities, considering environmental factors.

In the course of the study, primary information is collected through desk studies involving the collection and analysis of official legislative and regulatory acts of the Republic of Kazakhstan and data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. Carrying out a critical analysis of scientific literature on the research problem involves using of classification and systematization techniques, analogies and comparisons. At the same time, it is essential to observe the methods of historical and logical knowledge, which will allow us to evaluate economic processes as a whole and draw general conclusions.

The main methods of cognition used are synthesis, structuring, analysis, expert-analytical, analytical hierarchy, and others. The synthesis method allows combining, according to common classification criteria, existing, disparate approaches to the analysis of prospects for the development of the agricultural sector. The structuring method helps to organize all the information received about approaches to analyzing the prospects for the development of the agricultural sector into a system that is easy to understand. The method of analysis allows us to study various aspects of agricultural production.

In accordance with the goals and objectives of this study, as well as the available raw data, preference is given to the use of quantitative methods, namely methods of statistical analysis, which allows processing information, applying the results to develop and make the right decisions. Thus, the work uses the method of groupings, compiled typological, structural and analytical groupings, the structural-dynamic method, and the method of generalizing indicators.

Systematization of the data obtained in the course of the study is carried out on the basis of the method of tables. The graphic method is used to visualize the initial data, the results obtained and their interpretation.

4. FINDINGS AND DISCUSSION

The essential role in the development of the economy of Kazakhstan belongs to the agricultural sector of the economy, in which significant economic potential is concentrated. The level of its development has always played an important role in the economic and socio-political stability of the country, and determines the level of food security of the republic.

The President of the Republic of Kazakhstan, Kassym-Jomart Tokayev, gave instructions for the development of the agro-industrial complex of the country in his message to the People of Kazakhstan «Unity of the people and systemic reforms are a solid foundation for the prosperity of the country». He stressed the main problems of corruption in this industry. He raised the topic of the need to subsidize agriculture, especially the modernization of machinery (machinery and equipment). Attention was also paid to inflated prices for the national product, noting that local executive bodies, which should be responsible for their regulation, do not cope with the tasks set against the background of urgent problems in the Republic of Kazakhstan related to the development of the agro-industrial complex, there is a need to conduct a timely analysis of the state of agriculture, as an important sector of the agro-industrial complex of many countries, which includes the following components: crop production, animal husbandry, farms, individual subsidiary farms, etc.

The basis for the analysis of the development of agriculture in Kazakhstan was the information from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan and a source of literature. In the Republic of Kazakhstan in 2021, the gross domestic product (GDP) by production method amounted to 82207959.7 million tenge, which is 15.9% higher compared to 2020, in the structure of which the share of agricultural production (services) is 8.9% (7336966.3 million tenge), including gross crop production 4232458.6 million tenge (57.7%), livestock 3104507.7 million tenge (42.3%), which increased by 14.7% and 17.7%, respectively, compared to 2020. In the structure of GDP in 2021, a large share is occupied by the production of services, which amounted to 56.43%, and the share of goods production accounts for 43.57%, of which agriculture, forestry, and fisheries account for 5.43%, compared with 2018, the share of which increased by 0.63% (Figure 1).

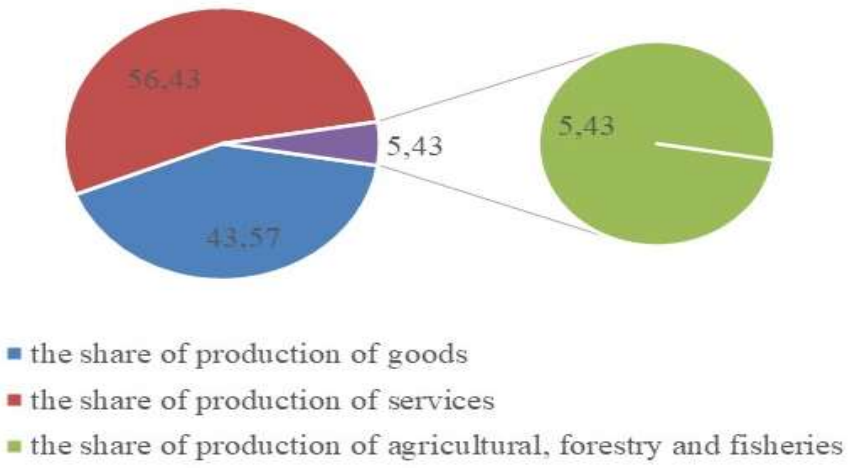

FIGURE 1. The share of production of goods and services in the GDP structure of the Republic of Kazakhstan in 2021

Note: Compiled by the author based on the data from the Bureau of National Statistics (2021)

The growth rate of agricultural output in the Republic of Kazakhstan, in monetary terms, shows a positive trend from 2007 to 2020 by 55.1% and a decline in 2021 compared to 2020 by 7.1% (Figure 2).

FIGURE 2. Dynamics of agricultural output in the Republic of Kazakhstan
Note: Compiled by the author based on the data from the Bureau of National Statistics (2021)

Table 1 shows the output of agricultural products of the Commonwealth countries. If to compare Kazakhstan with the CIS countries in terms of agricultural output for 2021, expressed in billions of dollars. The United States, then, is clear that it is in third place, after Russia and Uzbekistan. Compared to 2020, the dynamics of growth in Kazakhstan increased by 5.8%, while in 2020, the decline in growth rates in dollar terms was 0.2%, and in 2019 11.7%.

TABLE 1. Agricultural output of the CIS countries

Indicator	**in % to the previous year**				**billion US dollars**			
Country	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Azerbaijan	104,2	104,6	107,2	102	3,8	4,1	4,6	5
Armenia	97,2	92,4	95,8	101,4	1,9	1,8	1,8	1,7
Belarus	104,2	96,6	102,9	104,9	9,3	9,3	10,0	9,3
Kazakhstan	103	103,5	99,9	105,7	12,5	13,0	13,5	14,8
Kyrgyzstan	102,4	102,7	102,6	101	3,0	3,0	3,2	3,2
Moldova	109,1	102,5	98,1	72,9	1,8	1,9	2,0	1,2
Russia	102,9	99,4	104	101,5	87,6	81,9	89,6	84,7
Tajikistan	106,8	104	107,1	109	3,1	2,8	2,9	3,3
Uzbekistan	101	100,2	102,7	103	29,6	23,2	25,4	25,9
Ukraine	97,8	107,8	101,4	88,5	26,5	31,2	32,8	27,6
Total	102,9	101,4	102,2	99	179	172	186	149
Changes, in %	-2,34	-1,49	0,8	-3,19	104,6	96,1	107,9	80,2
Note: Compiled by authors								

Today there are three main forms of management in Kazakhstan: agricultural enterprises (large farms), farms/peasant farms (medium farms) and personal subsidiary farms (small farms). Large farms are legal entities, and farms are individual entrepreneurs in their organizational and legal forms and are not legal entities. The private subsidiary farm was excluded as an economic entity (not a legal entity). However, they remain important producers of agricultural products, especially in animal husbandry.

Of the economic entities in the agricultural sector, 15% – 4% are represented by large enterprises, and they process about 50% of all agricultural land. Large farms are concentrated mainly in the northern regions of the country, where farming is practiced. Cereals and oilseeds are mainly grown in these regions. Over the past 5-7 years, animal husbandry has been actively developing in the northern regions; in particular, with the support of the state, the breed composition of the livestock is changing. Table 2 shows the differentiation of the development of agriculture, considering the climatic and socio-economic conditions of the population.

TABLE 2. Priorities of agro-industrial complex development by regions of Kazakhstan

Region	Crop production	Animal husbandry
Akmola	Grain production: wheat, barley; oilseeds: rapeseed	Dairy and meat cattle breeding Broiler poultry farming
Kostanay	Grain production: wheat (hard and strong), Oilseed barley: rapeseed and flax seeds	Dairy and meat cattle breeding, pig breeding
Pavlodar	Grain production: barley, buckwheat, millet, Oilseeds: sunflower	Dairy cattle breeding, horse breeding
North Kazakhstan	Grain production: wheat, barley; oilseeds: rapeseed; potatoes	Dairy cattle breeding, pig breeding
Aktobe	Durum wheat (separate areas), barley, fodder crops	Beef cattle breeding, sheep breeding
West Kazakhstan	Durum wheat (separate areas), fodder grain, fodder crops	Beef cattle breeding, sheep breeding
Atyrau	Vegetable melon crops	Sheep breeding, camel breeding
East Kazakhstan	Feed grain, sunflower seeds, fodder crops	Dairy cattle breeding, broiler poultry farming, sheep breeding
Karaganda	Durum wheat (separate areas), fodder grain, fodder crops	Beef cattle breeding, sheep breeding, horse breeding, broiler poultry farming
Almaty	Feed grains (corn), oilseeds (beans, soybeans), safflower, vegetables, sugar beet, fruits and berries	Dairy cattle breeding, broiler poultry farming, sheep breeding
Zhambyl	Vegetable melon crops	Sheep breeding, dairy cattle breeding
Kyzylorda	Rice, vegetables, melons	Sheep breeding, camel breeding
South Kazakhstan	Vegetables and melons, fruit and vegetable products and grapes, cotton	Sheep breeding, dairy cattle breeding
Note: Compiled by authors		

Personal-subsidiary farms, in fact, are represented by families living in rural areas. In their personal farmstead, they have, on average, from 1 to 3 cows, sheep and goats, poultry, and a small vegetable garden, the area of which can vary from several acres to

0.25-1 ha. Despite the small scale, personal-subsidiary farms today produce up to 70% of all livestock products in the country. In total, more than 15,000 organizations engaged in agricultural activities (excluding forestry and fisheries) are registered in Kazakhstan. This is 3.5% of all organizations registered in Kazakhstan.

Figure 3 shows the most significant types of agricultural activities according to the Russian Classification of Economic Activities (RCEA): code 01111 «Cultivation of grain and leguminous crops, including crop production» - 4214 organizations; code 01500 «Mixed agriculture» - 3052 organizations; code 01420 «Breeding of other breeds of cattle for meat» -1495 organizations.

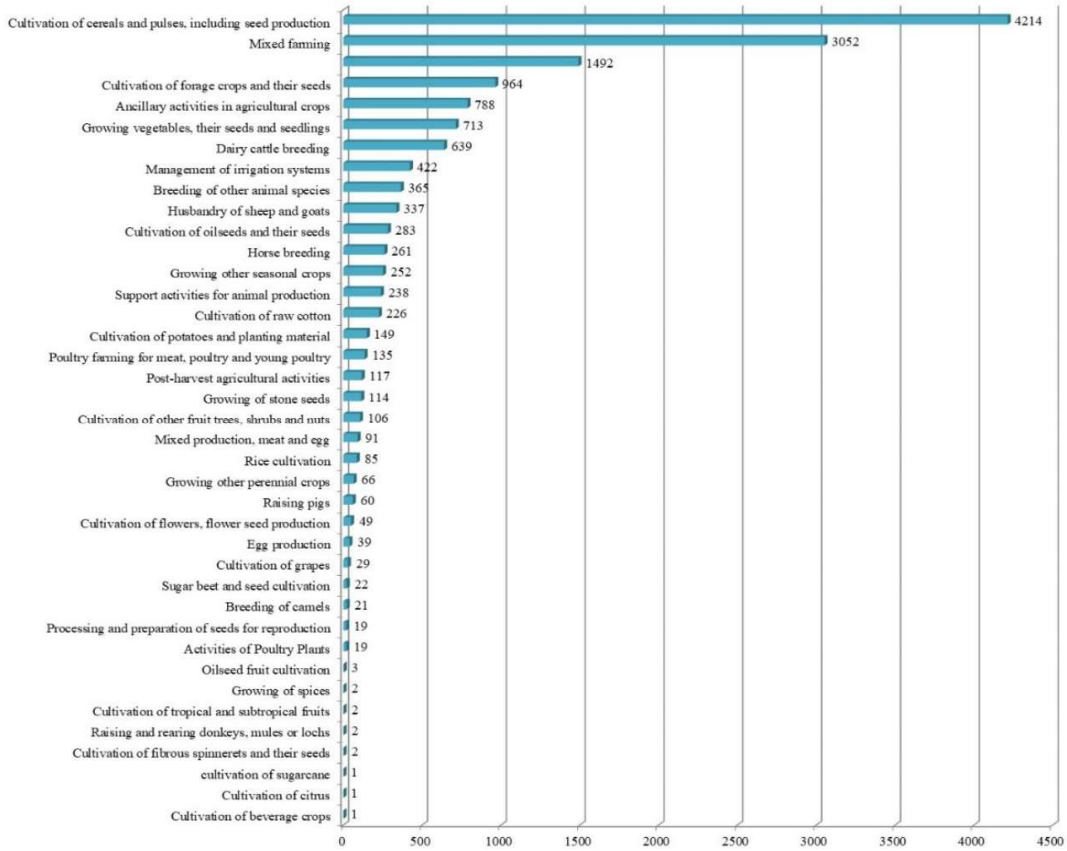

FIGURE 3. Number of enterprises by industry in the Republic of Kazakhstan registered in 2021

Source: Compiled by the author based on the data from the Bureau of National Statistics (2021)

One enterprise in the country is registered: cultivation of crops for the production of beverages, citrus fruits and sugar cane.

Figure 4 shows that the largest number of agricultural organizations located in the Turkestan region – 3503. Almost two times fewer organizations are located in the Almaty region – 1821, which ranks second in the number of such organizations. Akmola region is in third place – 1711. The smallest number of organizations is registered in Atyrau and Mangystau regions – 131 and 143, respectively.

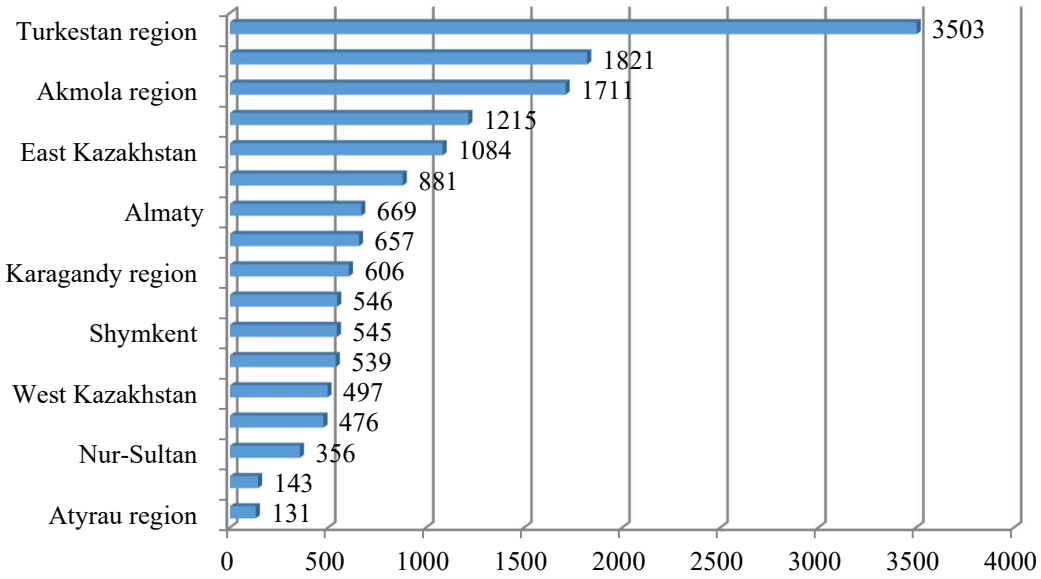

FIGURE 4. Number of agricultural enterprises by regions of the Republic of Kazakhstan

Source: Compiled by the author based on the data from the Bureau of National Statistics (2021)

Figure 5 shows the gross regional product (GRP) in 2021 by the regions of the Republic of Kazakhstan.

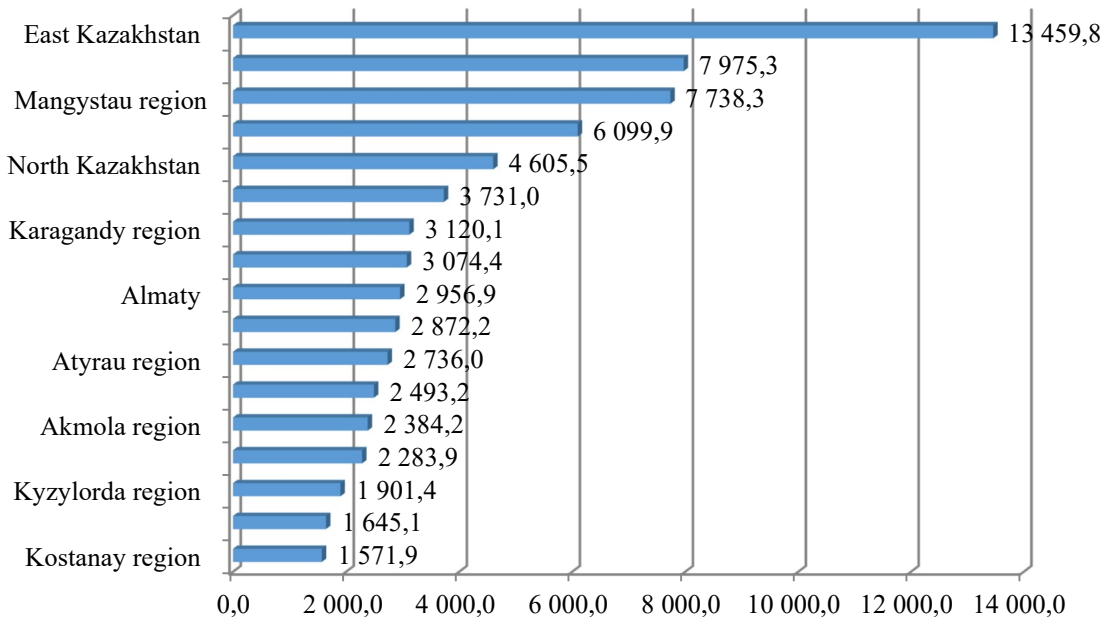

FIGURE 5. Gross regional product by type of economic activity in the RK for 2021

Source: Compiled by the author based on the data from the Bureau of National Statistics (2021)

In the production of which, the East Kazakhstan region occupies the first place - 13459.8 billion tenge (19.05%). Then comes Turkestan and Mangystau regions – 7975.3 (11.29%) and 7738.3 (10.95%) billion tenge, respectively. The least GRP accounts for Kostanay and Aktobe regions – 1571.9 (2.22%) and 1645.1 (2.33%) billion tenge.

Of the total GRP in the Republic of Kazakhstan, only 5.39% is accounted for by agriculture, forestry, and fisheries. Considering in more detail such economic activities as agriculture, forestry and fisheries, let us turn to Figure 6, from which it can be seen that the city of Shymkent is located in the first place (14.94%), followed by Akmola region (11.89%), Kostanay (11.72%) and Northern Kazakhstan (11.59%). The smallest share is occupied by Turkestan (0.13%), East Kazakhstan (0.22%), Zhambyl region (0.57%), and Almaty region (0.62%).

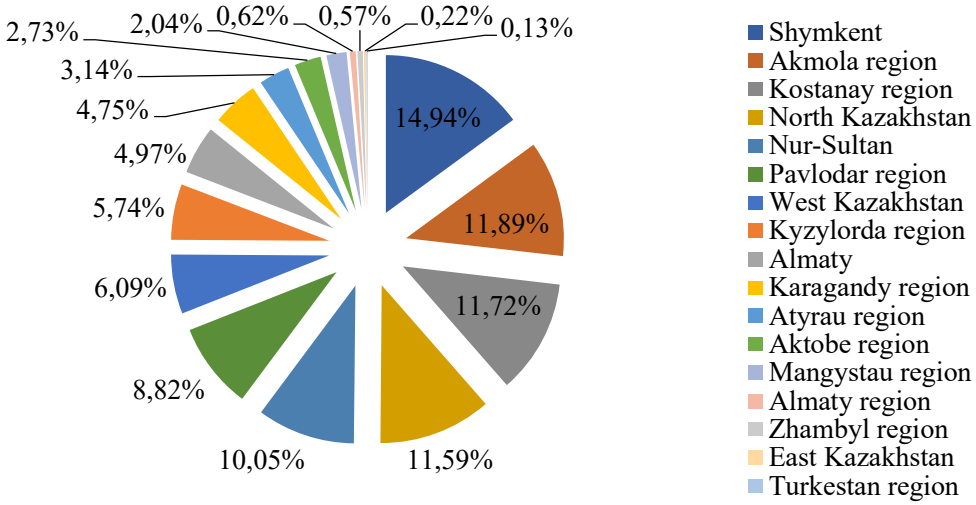

FIGURE 6. Gross regional product in the share ratio in agriculture, forestry, and fisheries in the Republic of Kazakhstan for 2021

Source: Compiled by the author based on the data from the Bureau of National Statistics (2021)

Thus, the analysis of the state of the agricultural sector in the Republic of Kazakhstan allows us to conclude that the main task of the agricultural sector in the country's economy is to protect the interests of domestic producers. Therefore, research is required not only on the general problems inherent in this market but also an analysis of the problems of each region separately. The agricultural market is considered an integral part of the national market. Therefore, after economic reforms in the food market in Kazakhstan, both national and regional market problems have arisen, to solve which is necessary: to attract investment, improve product quality, increase the production of environmentally friendly food, eliminate the price difference between production and processing industry, etc.

It should be noted that the development of the national agro-food market of the country depends on the activities of regional markets. Therefore, to talk about the food market as

a separate market of the country is a conditional concept since it is one of the constituent elements.

5. CONCLUSIONS

Based on the studied material at the time of writing the article, the following conclusions were made:

- the problems associated with the development of the agro-industrial complex affect the nation of the country. This industry is most susceptible to corruption, as the President of the Republic of Kazakhstan, Kassym-Jomart Tokayev, emphasized in his message;
- issues related to subsidies, reimbursement of part of the costs incurred by peasant farms (farmers) are raised annually, and the proposed national projects and programs today bring a small number of positive results;
- the population of Kazakhstan has experienced a shortage of vegetables and fruits, which are on the market at inflated prices. Prices for agricultural products are growing annually and monthly. The state bodies regulating prices do not cope with the tasks set. First of all, not only the farms themselves suffer but also the population, which cannot afford domestic products since the prices of export products are much lower;
- agriculture needs high-quality assistance from state executive bodies and subsidies;
- the lack of a clear mechanism for tracking problems at a lower level and a hierarchical structure for monitoring, as well as solving this problem;
- significant fluctuations in yields are observed not only due to unfavorable climatic conditions but also due to the very low scientific and technical equipment of the industry, in fact, at all stages of production, including post-harvest processes;
- the processes of processing and selling agricultural products, both on the local market and abroad, also require improvement. For example, only 2-3% of all vegetable and fruit products in the country are processed. However, despite the meagre share of processing of agricultural products, Kazakhstan is among the major producers and exporters of some types of products, such as cereals and flour.

To increase the level of development of the agro-industrial complex and its modernization, it is recommended to build a model for assessing the state of problems. To build what is necessary:

- to study the foreign experience of agro-industrial complex development and its modernization;
- deeply analyze the current state of the agro-industrial complex of the Republic of Kazakhstan;
- to develop a methodology for assessing, diagnosing, and monitoring the country's agro-industrial complex;
- to develop a model of the agro-industrial complex to improve the economic security of the republic.

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AUTHOR BIOGRAPHIES

***Saltanat N. Suieubayeva** – Candidate Of Economic Sciences, Associate Professor, School of Business and Entrepreneurship, D. Serikbayev East Kazakhstan Technical University; Ust-Kamenogorsk, Kazakhstan. Email: suyeubaeva@mail.ru, ORCID ID: https://orcid.org/0000-0002-0290-6290

Oxana K. Denissova – Candidate of economic sciences, Associate Professor, School of Business and Entrepreneurship, D. Serikbayev East Kazakhstan Technical University, Ust-Kamenogorsk, Kazakhstan. Email:denokkas@mail.ru, ORCID ID: https://orcid.org/0000-0001-7899-500X

Aliya M. Kabdulsharipova – Candidate Of Economic Sciences, D. Serikbayev East Kazakhstan Technical University, Ust-Kamenogorsk, Kazakhstan. Email: akabdulsharipova@mail.ru, ORCID ID: https://orcid.org/0000-0002-8376-5636

Aylin Idikut Ozpence – PhD in Economics, Associate Professor, Pamukkale University Facultyof Economics and Administrative Sciences Department of Public Finance Denizli, Turkey. Email: aidikut@pau.edu.tr, ORCID ID: https://orcid.org/0000-0002-4087-5202

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Developing Students' Intellectual Capital Based on Virtues with Workplace Spirituality

Abdul Azis Bagis[1]*

[1] Mataram University, West Nusa Tenggara Province, Indonesia

Corresponding author:
Abdul Azis Bagis - Lecturer, Faculty of Economics and Business, Mataram University, West Nusa Tenggara Province, Indonesia.
Email: azis.bagis@unram.ac.id

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Abstract

Students in Indonesia who aspire to become entrepreneurs must understand the importance of their intellectual capital. Entrepreneurship education is usually carried out through the transfer of knowledge and business skills from outside the students (outside-in). Meanwhile, to build an entrepreneurial spirit in students, virtues (inside-out) stimulants are needed, which reflect wisdom, knowledge, and fortitude to encourage the development of students' intellectual capital. Thus, entrepreneurship development is an effort that synergizes these two aspects simultaneously to become the strength of students' intellectual capital. Studies conducted on students at several universities in the province of West Nusa Tenggara, Indonesia, show that wisdom, knowledge, and fortitude effectively build students' intellectual capital. The internal environment of economic and business education, as a place for learning and practical work, is perceived as a workplace spirituality capable of accelerating the role of virtues in building students' intellectual capital. Workplace spirituality shows an academic atmosphere that reflects the meaningfulness of strengthening virtues stimulants in developing students' intellectual capital as prospective entrepreneurs, in being creative, and in generating new and different ideas. Developing intellectual capital does not mean mastery of competence and material resources becomes less critical. All must be designed synergistically to improve the quality and effectiveness of Indonesian student entrepreneurship.

Keywords: Entrepreneurship Development, Virtue, Wisdom and Knowledge, Temperance, Workplace Spirituality

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1. INTRODUCTION

University students in Indonesia must have a high degree of entrepreneurship to face liberalization in ASEAN. Therefore, Indonesian university graduates from various study programs must be more prepared to be independent and competitive than graduates from other countries. Among the challenges university graduates face in Indonesia is the expectation of being job seekers instead of job creators. Meanwhile, in Indonesia, the lack of job opportunities due to the weakening of the real sector and regional and international competition has caused a surplus in the number of educated job seekers. This is because "many fresh graduates leave universities without the required skills such as attitudes, skills, and understanding needed to succeed in the working field" (Rahim et al., 2015). This has caused inconsistency between the skills of university graduates and the criteria required in the job market. This challenge requires special attention from various parties and, therefore, the development of youth entrepreneurship to increase youth employment, which must be taken into account in the current situation by Kazakhstan's experience (Buitek & Kaliyeva, 2022).

It is expected that education and teaching process Indonesian universities in the future should develop an entrepreneurial mindset in students as entrepreneurship is now considered a significant contributor to global economic growth (Saeedsiddiq & Nor, 2012). This is in line with experts' opinion that a country will be prosperous if at least two per cent of its population comprises entrepreneurs (Xavier & Clayton, 2014). Based on its population of approximately 250 million, Indonesia will need at least 5 million entrepreneurs. An entrepreneur will be able to create and grow a business, dream of a successful future, and have the innovation ability and courage to take calculated risks as entrepreneurial capital. One of the most important functions of an entrepreneur is to bring together the resources required to start and grow a business. Another key function is to innovate and bring new or different products and services to the market (Fuller-love & Gorman, 2011). Education and teaching put an understanding of entrepreneurship theory as a priority (to know) and, to the highest degree, provide entrepreneurship training (to do). However, both elements do not guarantee to build off a heightened innate sense of entrepreneurship that can encourage students to actualize their entrepreneurial careers. For this reason, authentic learning is needed based on the experience of foreign countries in innovating, such as the benefits of recycling waste into gifts (Ausharipova & Kulumbetova, 2022).

Therefore, to produce students with a high entrepreneurial spirit, the author argues that an initial step is needed to cultivate an entrepreneurial spirit from within students (inside-out). This study shows that entrepreneurship education involves the synergy of the two patterns simultaneously, starting with students and continuing with entrepreneurship material. These patterns must be supported by an academic environment that stimulates entrepreneurial mindset of students and turns them into entrepreneurial intellectual capital.

2. LITERATURE REVIEW

Many myths are preventing the development of students' virtue in doing and managing the business. These hindrances must be eliminated and replaced with

assertions and contentions that can convince related parties to produce a highly innate sense of entrepreneurship in university students and graduates in Indonesia. Universities' management, lecturers, staff and students need to collaborate and co-create an integrated and favorable environment to develop and optimize students' virtue in business.

Entrepreneurial Characteristics. Anyone can become an entrepreneur if the entrepreneurial characteristics are essential and can be realized. Virtue is a contemporary approach in philosophy to the strength of character. This is much more interesting than the law, at least to psychologists, because virtue is concerned with people and their lives (Peterson & Seligman, 2004). According to experts, these characteristics generally include the ability to create, the ability to innovate, and the ability and courage to take risks. For example, social entrepreneurship combines three main elements: innovation, proactiveness, and risk-taking in seeking new opportunities to create positive social impact (Helm, 2007; Rahim et al., 2015). Thus, students can be considered entrepreneurs if they consistently understand and build entrepreneurial characteristics. Stimulation of virtue, in the form of wisdom, knowledge and temperance, is expected to build the intellectual capital that a young entrepreneur needs. Changes in problem-solving methods are required at the macro and micro levels through different behaviors and modern technologies (Lodhi el al., 2022).

Entrepreneurial characteristics tend to reflect an individual's spirit to create new or different ideas and readiness and ability to innovate, materialize the ideas in the form of works appreciated by people, and carry them out boldly by managing the risks (Embi et al., 2019). Entrepreneurial characteristics indicate a high intention to do useful activities with added value and in a considerate manner. An individual with an entrepreneurial mind intends to be a creative and innovative human being andis bold to take calculated risks (Lee et al., 2017).

To become university graduates with a high innate sense of entrepreneurship, they need to understand and bring out their business potential (positive entrepreneurial characteristics) and simultaneously build and optimize their competencies. Entrepreneurial characteristics may be developed through the maximum actualization of the students' virtue in business and the continuous development of their business competencies (Hamzah, 2019). The support of a favorable academic climate is expected to expedite and facilitate the development of the students' entrepreneurial characteristics. Entrepreneurship can be enabled through innovation and new-venture creation via four major dimensions (individual, organizational, environmental and process) that are aided by collaborative networks in the government, education and institutions (Yusof et al., 2009; Siagian, 2011).

Challenges in the global business world nowadays require high, creative and efficient adaptive ability to develop continuous excellence. Observation of the successes made by businesspeople in overcoming their limitation of physical capital ownership proves that they have exceptional potential power. The concept of invisible intellectual capital, whose existence is sensed by stakeholders, should be utilized. Intellectual capital is an intangible value that drives future benefits for an organization (Abdulaali, 2018). Effective intellectual capital management can be critical in determining an organization's performance. Companies that want to thrive in today's business

environment must invest the right intellectual capital to ensure they have employees with better skills than their competitors (Hasan, 2021). Research on intellectual capital is evolving using an intellectual capital third-stage approach to investigate intellectual capital practices within universities, and new research also focuses on outcomes (Secundo et al., 2018).

3. METHODOLOGY

This research focuses on developing a business entrepreneur model with university students as a unit of analysis. The observation object comprises students who have completed entrepreneurship subjects in their programs. This research was conducted using the causative method by studying unexpected variables estimated to develop a business sense of entrepreneurship in university graduates. The research focused on a group of university students in state universities in West Nusa Tenggara. They include students from various study programs who had attended the entrepreneurship course. The student respondents were assumed to be able to share their perceptions on entrepreneurship issues in universities. The students were also deemed able to express their perceptual attitude correctly and objectively. The research took place in state universities in West Nusa Tenggara. The academic population consisted of registered students. Meanwhile, the respondents were those who were registered and had taken the entrepreneurship course, taken randomly, totalling two hundred students in each study program.

Research measurement objects were the attitude and behavior tendency of students of Mataram University and Institute Agama Islam Negeri Mataram (State Islamic Institute of Mataram) and students' agreement on the academic climate as institutional support they experienced within their respective campus environment or during the daily learning process. Attitude measurement was conducted based on the verbal expressions of the students by selecting the statements that best fit theirperceptions and feelings. The measurement technique used in this research was the application of the Likert scale with an interval measurement scale. The measurement was conducted by observing respondents' data characteristics that met the requirements of interval data processing. Next, construct validation was conducted using Factor Analysis and causative relation study using Multiple Regression.

Based on the initial concept and entrepreneurship experts' support, a hypothetic model was built, depicting two main variables (*independent variables*), covering virtues actualization and students' business competencies, which was integrated into human capability, which was predicted to be able to build business entrepreneurs. Further, this was strengthened with other moderating variables, i.e. academic climate and institutional support from the State Universities. The basic model of the Business Entrepreneur is described in a diagrammatic model as follows:

Business entrepreneurship is an expression of someone's attitude that reflects a strong intention to become a real entrepreneur. An intention to behave as a business entrepreneur may be built by first evoking maximum volition to do business, supported by all understanding and ability of businessthat someone has (personality). Volition as the basis of building the intention to become an entrepreneur may be strengthened by

supporting factors, both physically (means and infrastructure) or non-physically (psycho-social). Students' attitude was conceptualized by the business virtue concept ability formulated by students' competency level. Model is shown in Figure 1.

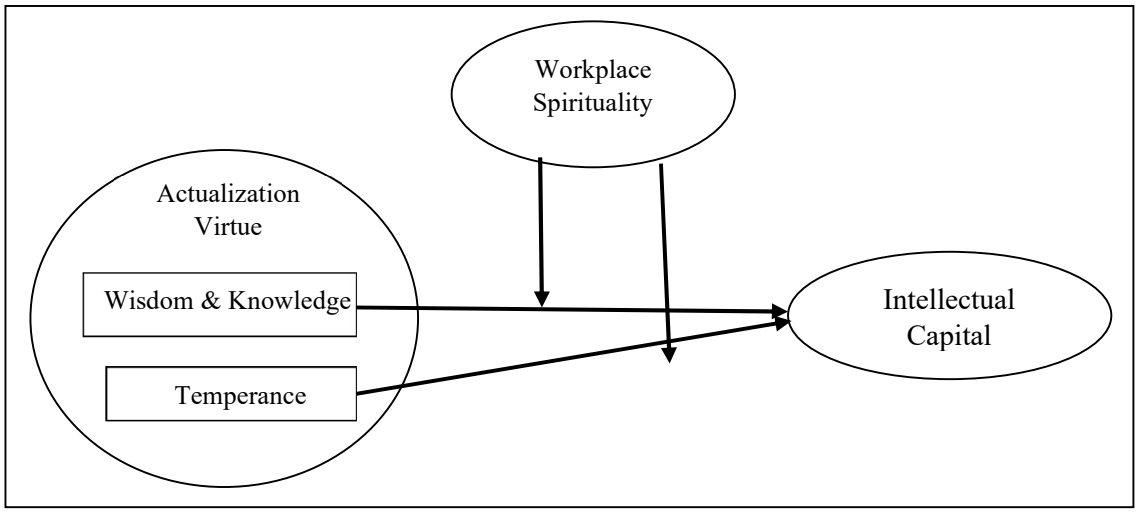

FIGURE 1. Model of Students' Intellectual Capital

Note: compiled by the author

Both form the concept of Human Capability, which may build business entrepreneur characteristics reflecting an intention to have a particular behavior. Studies on academic environment variables, both physical in the forms of institutional support and non-physical or conducive environment, may be integrated due to similarity in meaning according to students' perception of the teaching and learning process in the university environment. The objectives of this research include: simultaneously developing a sense of business entrepreneurship in the students based on business virtues (positive characteristics) and business competencies (knowledge and skills) in the university, which begins with volition to materialize students' entrepreneurship goal and spirit (inside-out), and then followed by the ability to compete (outside-in) in the form of up-to-date and contextual business knowledge; to motivate more effective and ethical educational development and entrepreneurship training for students in universities in Indonesia; and to develop open cooperation climate and culture for related parties (university graduates, business people, regional government and community), based on mutual trust and to create young entrepreneurs from universities to meet the nation's expectation to continue developing excellent competitive advantage.

It also aims in the short term to create understanding (*to know*) of up-to-date and contextual entrepreneurship; in the mid-term, to develop the ability to execute (*to do*) ethical business and later ability to create those who *(to be)* are inspired as competitive entrepreneurs; to compile applicative text book and to make an effort to obtain copyright, and to produce a scientific publication and social engineering/public policy paradigmatically to develop young entrepreneurs in Indonesia.

Wisdom, Knowledge, Temperance and Intellectual Capital. Intellectual capital is a dynamic system that develops and produces knowledge supported by codified tacit knowledge (Latilla et al., 2019). Students' intellectual capital is the ability to understand the development of business information on an ongoing basis—intellectual capital positively affects student interest (Ulum et al., 2019). The formation of student intellectual capital can be driven by the values of wisdom, knowledge, and temperance. Wisdom and knowledge are forms of the human intellect, whose existence is hated by no one and appreciated by all (Peterson & Seligman, 2004), which can be a strong stimulant in building student intellectual capital. Wisdom is expected to be a key asset for entrepreneurs who must constantly adapt to a dynamic environment (McNally et al., 2018). Likewise, with temperance, temperance is a form of self-denial that ultimately results in being generous with oneself and others (Peterson & Seligman, 2004). Students who can use the value of temperance will find it easier to build their intellectual capital. Thus, it can be concluded as follows:

H_1: Students with wisdom, knowledge, and temperance can build their intellectual capital.

Virtue and Academic Climate of Higher Education. The acceleration of the formation of student intellectual capital, apart from being stimulated by virtue, in this case, wisdom, knowledge, and temperance, is also primarily determined by strengthening the university's internal environment. In this case, the academic climate is conducive to developing virtue values that can encourage students to build their intellectual capital. Thus, the following hypothesis can be formulated:

H_2: The conducive climate of higher education can accelerate the influence of wisdom, knowledge and temperance in building their intellectual capital.

Internal environment support is also needed to build students' intellectual capital apart from being a stimulant of the strength of virtue in the form of wisdom, knowledge and temperance. To encourage the tendency of students and researchers in the university environment, the role of the academic climate needs to be considered (Bergmann et al., 2018). Following recent developments in the world of higher education, including in Indonesia, it appears that the trend of the academic climate is felt to be increasingly meaningful as a place for learning and practical work for students. The work environment can also be understood as values that shape attitudes, behavior, and performance. Among these values, trust is accepted as an organizational environment rich in spirituality. Trust has been shown to mediate workplace spirituality in building work performance (Bienstock & Daniel, 2019). However, the unique concept of spirituality has not yet been agreed upon. Spirituality can also be considered religious (Geaquinto et al., 2020). Trust in government and other institutions has proven vital for self-efficacy (Hassan et al., 2022). Trust and user experience factors influence user satisfaction and can mediate stimulants on user satisfaction (Hossain et al., 2020). It is realized that cooperation between universities and the business world can encourage co-creation among students. This research is interesting on how students view their university in the Indonesian context and the extent to which the university can promote an entrepreneur through and spiritual perspective by our research objectives. Empirical findings show that workplace spirituality positively and significantly impacts lecturer engagement, commitment, workforce agility, trust, and empowerment (Soliman et al.,

2021). Academic discussion about workplace spirituality in higher education is increasing (Brucaj & Karci, 2013). It can maximize the emergence of values and virtues that require the support of a conducive environment. The recent emergence of spirituality on campuses in the United States reports the potential benefits and challenges of addressing spirituality in higher education (Waggoner, 2016). Strategies to increase workplace meaningfulness in the higher education system by focusing on the spiritual needs and spiritual growth of students and staff are increasingly needed (Soliman et al., 2021). Therefore, workplace spirituality moderates intellectual capital achievement for students with wisdom, knowledge, and temperance. Proposes the final hypothesis as follows:

H_3: Workplace spirituality will moderate the relationship between wisdom, knowledge and academic climate in building students' intellectual capital.

H_4: Workplace spirituality will moderate the relationship between temperance and academic climate in building students' intellectual capital.

4. FINDINGS AND DISCUSSION

Business entrepreneurship in students indicates absolute character ownership, especially those who have taken entrepreneurship courses in their study programs. Results of factor analysis for Business Entrepreneur characteristics with the two main characteristics, wisdom, knowledge and temperance and the selected component is meant to represent the virtue of building intellectual capital. However, it still reflects the main character of a real business entrepreneur. Indeed, the power of using knowledge and wisdom is to think of new and productive ways to conceptualize and do things; and curiosity [interest, novelty seeking, openness to experience]: Taking an interest in ongoing experiences for its own sake; finding subjects and topics of interest; explore and discover Open-mindedness and weigh all evidence fairly. Love of learning: Mastering new skills, issues, and knowledge pools, either alone or formally; related to the power of curiosity but more so to describe the tendency to add systematically to what is known. Perspective [wisdom]: Able to give wise advice to others; have a way of looking at the world that makes sense to themselves and others. All of those things are explained by Peterson & Seligman.

The power of wisdom, knowledge and temperance has also been proven to have accelerated after being supported by an academic climate that reflects workplace spirituality in building students' intellectual capital. It can be understood that in an atmosphere full of meaning, it is easier for students to bring out their virtues to the fullest, including wisdom, knowledge and temperance. Students manifest the main virtue characteristics by bringing up their wisdom and knowledge of virtue values in stimulating their intellectual capital. Students who realize the importance of positive character will find it easier to bring their wisdom and knowledge in an academic climate reflecting world spirituality. The empirical findings show that workplace spirituality positively and significantly impacts lecturer involvement, commitment, workforce agility, trust, and empowerment (Soliman et al., 2021). Much academic discussion about workplace spirituality to assess spirituality as a positive factor in the higher education system is increasing (Brucaj & Karci, 2013), and maximizing the emergence of intention

requires the support of a conducive environment. The challenge for related parties in higher education today and in the future is to build an academic climate (Rania et al., 2014) that can raise enthusiasm and encourage the emergence of intellectual capital for all students.

The study's result on various valid and reliable manifest variables serves as the basis for multiple regression that includes independent, dependent and moderate variables. With the backward elimination method, the regression in the final model shows the following:

TABLE 1. Multiple Regression Model

Independent Variable	B	Beta	T	Significance
(Constant)	.789		3.927	.000***
Wisdom and knowledge	.317	.426	4.907	.000***
Temperance	.436	.524	9.952	.000***
Wisdom and knowledge and workplace spirituality	.029	.191	2.441	.016**
Temperance and workplace spirituality	.039	.421	4.341	.009**

Note: compiled by the author
Significance level: * significance with $p < 0.10$
** significance with $p < 0.05$
*** significance with $p < 0.01$

5. CONCLUSIONS

The result of this study shows the students' contribution to developing business entrepreneurship offered by their virtue to improve their excellence, relying on their various business human and competency potentials. This study leads to the following conclusion:

(a) A study of a group of students at a state university in West Nusa Tenggara, Indonesia, shows that entrepreneurial intellectual capital can be built through the stimulation of virtues, namely the integration of student wisdom and knowledge and simplicity.

(b) With the support of an academic climate that reflects the spirituality of the workplace, it can provide a convincing acceleration for the formation of students' intellectual capital. The university's internal climate that reflects the meaningfulness of learning and practical work becomes a conducive habitat for the role of virtue in shaping students' intellectual capital.

(c) Development of student intellectual capital, including the willingness and ability of students to run entrepreneurship according to the challenges of the contemporary business world.

Recommendation. Based on the results of the intellectual capital study above, building students' attitudes and behavior to become entrepreneurs can be recommended. Students need to be given a deep understanding of virtues and positive characters, especially those of wisdom, knowledge, and temperance, on an ongoing basis. To support the acceleration of students' willingness and ability to build entrepreneurial

skills, this role of virtue and spirituality workplaces can be built in a higher education environment.

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AUTHOR BIOGRAPHIES

***Abdul Azis Bagis** – Lecturer, Faculty of Economics and Business, Mataram University, West Nusa Tenggara Province, Indonesia. Email: azis.bagis@unram.ac.id, ORCID ID: https://orcid.org/ 0000-0002-2390-5991

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Health Capital in Kazakhstan and Factors of its Development

Saira R.Yessimzhanova[1*]

[1] Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan

Corresponding author:
Saira R. Yessimzhanova - Doctor of Economic Sciences, Professor, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan.
Email: saira_sr@mail.ru

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Abstract

This article discusses the essence of health capital based on the theoretical analysis of the scientific works of various scholars of the past centuries and modern times. The analysis of its development factors reveals negative trends in life expectancy in Kazakhstan exacerbated by the pandemic. Our previous studies related to marketing studies conducted by interviewing patients expressed, for the most part, their dissatisfaction with the quality of medical services provided. The results of the expert survey made it possible to identify problems in healthcare in the context of COVID-19 and determine ways to solve them. On the base of previous work, this study was conducted to show the concept formation based on scholars' works. The identified negative trends in the development of health capital in Kazakhstan indicate the objective need to increase healthcare costs, which are profitable investments that contribute to both increasing the productivity of workers and promoting the health of an individual. It was found that the average remuneration or salary of medical workers in the Republic of Kazakhstan in comparison to OECD countries is incompetent low, thus leading to the low motivation of healthcare system workers to demonstrate high performance. This phenomenon leads to the dissatisfaction of the public with the delivered services. Therefore, to improve the quality of health capital, it is necessary to move from the concept of improving health care to the concept of monitoring, premature prevention and promoting public health.

Keywords: Economics, Health Capital Factors, Human Capital Life Expectancy, Medicine, Mortality, Medical Services Business, Investment, Expert Survey, Quality of Health Services

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1. INTRODUCTION

Health capital is a basic component of human capital and has a direct influence on the economic performance of any organization, which makes it possible to consider it as a factor in increasing labor productivity and production efficiency. The qualitative and quantitative characteristics of health capital affect not only the quality of life of an individual but, through increased productivity in the workplace, benefit the economy and contribute to the country's competitiveness. In this regard, this topic becomes especially relevant as well as with the deterioration of public health and the increase in the mortality rate in the context of the COVID-19 pandemic. The increase in mortality associated with the pandemic reduced the life expectancy of the population of Kazakhstan in 2020 compared with 2018 by 1.75 years. Therefore, the presented article analyses the factors characterizing the state of health capital in Kazakhstan and on this basis, makes specific proposals.

The qualitative and quantitative analysis made it possible to reveal not only the state of development of health capital in Kazakhstan but also to identify problems in the health economy as a whole and the quality of medical services.

Aim and objectives of the research: If we consider the main indicator characterizing the state of health capital - the average life expectancy of the population, then why and due to what factors have it decreased over the past two years? This is the problem of research, which requires its study. The goal of the study is to analyze the factors affecting the state of health capital in Kazakhstan in the context of the COVID-19 pandemic, identify problems in the provision of medical services and make recommendations to improve their solution. The objective of the article is to conduct a comparative analysis of the state of health capital in Kazakhstan, as well as determine the factors influencing its development, conduct marketing research based on a survey, interview to identify problems in the area under study and make recommendations on their solution.

2. LITERATURE REVIEW

The concept of human capital was developed by economists T. Schultz (1971) and G. Becker (1994). For the first time, the term "human capital" was used by Schultz, meaning a set of investments in a person that increase his ability to work (Schultz, 1971). G. Becker, developing Schultz's idea, defines human capital as "a set of innate abilities, acquired skills, knowledge, and motivations embodied in a person, which are used to produce goods and services and are sources of income for a person and society" (Becker, 1994). K. Sagadiev emphasizes the important role of human capital in increasing the competitiveness of the country (Sagadiev, 2013). The article by Glazyev and Voronov is devoted to measuring human capital in the context of structural economic changes (Glazev et al., 2020). Such a relationship is shown based on the integration of multidisciplinary approaches and parameters for assessing human capital.

Until recently, researchers considered education capital as the main factor in the formation of human capital. However, there is an increasing focus on health capital. The American scientist M. Grossman contributed significantly to the development of the concept of health capital. In his opinion, health is on one hand, a consumer good for which there is demand, and on the other hand, an investment good, which is determined

by the net value of the benefits derived from this good (Grossman, 1972).

I. Ilyinsky made a significant contribution to the development of the theory of health capital. According to I. Ilyinsky, health capital is an investment in a person, carried out to maintain and improve his health and efficiency (Demidov et al., 2015). It should be noted that investments in health will not only reduce morbidity and mortality but also increase productivity and production efficiency in general.

A. Schneider-Kamp, in the article on the conceptualization of health capital, is based on the theory of human capital associated with the Chicago School of Economics and Bourdieu's concept of social capital. A. Schneider-Kamp notes the importance of social and cultural aspects in building individual health. It considers health capital as a collection of actual or potential agent resources affecting the position of other agents in the social field of health (Schneider-Kamp, 2020).

T. Verulava by health capital means the investment in a person necessary to maintain their health and well-being. As proxy indicators for measuring health capital and its development factors, the author used life expectancy, overall morbidity, maternal and child mortality, outpatient focus, public health expenditure, and their share in gross domestic product. Based on the analysis, the author showed the impact of these indicators on the economic growth of Georgia (Verulava, 2019).

La Torre D., Marsiglio S., Mendivil F., Privilrggi F. using a simple two-sector stochastic dynamic model of economic growth in work shows that the accumulation of physical and health capital jointly contributes to long-term economic growth. However, health services are subject to accidental shocks due to changes in behavior. The economy is more or less likely to face negative consequences, which negatively affect long-term economic growth (Torre et al., 2019).

In their work, Forrester and Verevkina (2016), substantiated the factors affecting human health, including heredity, medical provision, an environmentally friendly environment, and human lifestyle. It can be noticed that S. Forrester and D. Verevkina added a favorable environment and lifestyle to the factors affecting health capital, unlike T. Verulava.

In this work, the main distinction from the previous works and researchers, based on the above statements, the author also considers “health capital as an investment in a person aimed at improving health and well-being”. This investment will contribute not only to reducing morbidity and mortality but also to improving health, as well as improving labor productivity, and economic growth in general.

In conclusion, the study of scientific papers on this topic shows gaps in a more comprehensive study of factors affecting capital health. In addition, this aspect of the chosen topic is not considered in the publications available in Kazakhstan. Thus, Kazakhstani authors studied the influence of social and economic factors on the readiness of the population to maintain and accumulate health capital (Spankulova et al., 2021). There are several works on this topic. However, they were not eligible enough to cover the topic of health investment in terms of economic perspectives.

3. METHODOLOGY

The results of the article are based on conducting interdisciplinary research in

medicine and marketing. In the process of preparing the study, general scientific methods were used: analysis, synthesis, systematization, and generalization of concepts of human capital.

The study of theoretical material is based on content analysis of existing perspectives on developing human and health capital concepts. To clarify the goal of the study, this article uses both quantitative and qualitative methods of analysis.

The research uses the method of expert assessments, which involves obtaining a generalized opinion of experts on the study issue, based on the experience and recommendations of competent specialists. The main goal of this survey was to clarify the problems associated with coronavirus infection. An expert survey was conducted in the form of online discussions among respondents in the amount of 30 people who were ready to share their answers in research aims by "Google Forms" online survey tools and online discussions via "Zoom." The number of participants were selected from the 65 policlinics from available experts in Almaty city, Kazakhstan. In expert studies, the number of competent respondents allows for obtaining the representativeness of the sample (Orlov, 2002). Experts selected the leading managers of the Office of Public Health, as well as experienced doctors of polyclinics and hospitals in Almaty. The study was conducted between November 2021 and March 2022.

The study used a semi-structured questionnaire. The questions were divided into certain thematic blocks. Previously, a pilot survey of experts was carried out, after which adjustments were made to the questionnaire questions.

Quantitative assessment of expert responses and qualitative analysis made it possible to understand the importance of existing problems with the situation of coronavirus for making informed decisions on them. These results were published in more detail in the journal of Turan University (Yessimzhanova, 2021). Therefore, this article presents only the final data.

The article also presents the results of marketing research conducted to examine patient satisfaction with the quality of health services. This survey was conducted based on personal interviewing of patients at polyclinics No. 17, No. 8, and No. 4, as well as using the tools of the Google Forms online survey in 2020. The sample size was 248 people, and its representativeness was determined by the statistical method.

For the study, materials from the Ministry of Health of the Republic of Kazakhstan, data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, reports of the World Health Organization (WHO) and the World Bank were used.

4. FINDINGS AND DISCUSSION

In the process of transforming the concept of human capital and capital of health, the problem of investing in its reproduction is emphasized. Classics of this theoretical direction Schultz and Becker noted that education and investment in education determine the value of human capital in a market. Developing Schultz's theory, Becker justified the productive nature of investments in education, healthcare, and social programs and proved that these investments contribute to obtaining no less and possibly more significant economic effect than investments in manufacturing and technological

processes.

The definition of "capital" implies its application in the production process. Therefore, in the realization process, human capital generates income in the form of increased wages and profits. The concept of "capital" assumes its application in the production process. Therefore, in the process of implementation, health capital brings on the one hand, income to a person in the form of wages and on the other hand, contributes to an increase in labor productivity. In a global pandemic, we see the paramount importance of investing in human health (Forrester & Verevkina, 2016).

The quality of health capital is influenced by social, economic, demographic, environmental, and other factors. Consider certain factors directly affecting the formation and development of health capital in Kazakhstan. The author adheres to the opinion of Verulava (2019), Egorova (2015) and refers to such factors as healthcare costs, life expectancy, the morbidity of the population, disability, mortality, and preventive examinations.

Consider the characteristics of some of these factors based on the availability of information. In 2016-2020 the health expenditure in Kazakhstan did not exceed 3.0-4.0% of GDP (Table 1).

TABLE 1. Factors influencing the formation and development of health capital in Kazakhstan

Indicator	2016	2017	2018	2019	2020	2020 to 2016
Number of incidents in the main classes of diseases, '000 persons	105,096.7	107,164.8	105,056.2	104,133.8	103,113.2	98.1
Mortality rate per 100 000-person, person	737.50	715.22	713.75	719.08	860.24	119.6
Life expectancy, years	73.30	72.95	73.15	73.18	71.37	-1.93
Health expenditure in % of GDP	3.7	3.2	3.0	3.0	4.0	+0.3
Note: Complete by authors Based on Bureau of National Statistics (2020)						

Over the past two years, billions of tenge have been allocated to the development of the health system and the treatment of coronavirus. However, the level of its financing remains low – 4.0% of GDP in 2020 (Bureau of National Statistics, 2020). This is insignificant compared to other countries where spending averages 5-15% (with higher spending in the USA and Western Europe). WHO recommends allocating 5 – 5.5% of annual GDP to countries' healthcare systems. Low funding for health also affects the level of remuneration of medical personnel. In 2020, the average monthly salary of doctors amounted to 246 thousand tenge. However, a 30% increase from 2019, is still considerably lower than the national average (Bureau of National Statistics, 2020). As you can see, during the analyzed period, there is a slight decrease in the incidence of the population in the main classes of diseases. If the value of the first indicator for 2016-2020 increased by almost 17%, then the life expectancy of the population decreased by 2.6 %. Along with social and economic factors such as rising unemployment and population poverty, the COVID-19 pandemic significantly impacted the dynamics of these indicators.

Preventive examinations are an important factor contributing to the accumulation of health capital. Data from the Organization for Economic Co-operation and Development (OECD) for high- and middle-income countries show that 19-53% of women aged 50-69 did not undergo screening mammography examinations (OECD, 2022). In Kazakhstan, according to experts, only 40-45% of the population aged 60 and above are screened.

According to the Ministry of Health, from 2016 to 2020, mortality from diseases of the circulatory system, respiratory organs, and infectious diseases increased. In 2020, compared to 2019, mortality from infectious diseases more than doubled, almost 40% from respiratory diseases. Their growth is attributed to COVID-19 (Report of the Minister of Health of the Republic of Kazakhstan (2021).

Compare data on life expectancy in Kazakhstan with other countries. In 2019, its value was 73.2, while in Belarus – 74.8, Kyrgyzstan – 74.2, Japan – 84.5, the UK – 81.5, and Turkey – 78.8 (see Table 2).

TABLE 2. Life expectancy at birth

Country	Year	Population, age	including	
			man	women
Kazakhstan	2020	71.4	67.1	75.5
	2019	73.2	68.8	77.3
Russia	2019	73.0	68.0	78.0
Belarus	2019	74.8	69.7	79.6
Azerbaijan	2019	71.4	68.8	74.1
Kyrgyzstan	2019	74.2	70.7	77.3
Tajikistan	2019	69.5	67.6	71.5
Uzbekistan	2019	73.0	70.8	75.2
Ukraine	2019	72.9	68.0	77.8
Japan	2019	84.5	81.5	87.1
Great Britain	2019	81.5	80.0	85.0
Turkey	2019	78.5	76.5	80.5
China	2019	71.4	74.7	80.5
Hungary	2019	76.4	73.1	79.6
Latvia	2019	75.4	70.6	79.8

Note: Complete by authors Based on Bureau of National Statistics (2020)

The increase in mortality during the pandemic reduced the population's life expectancy: in 2020, compared to 2019, the decrease was 1.8 years and compared to 2018 (73.15) – 1.75 years. The life expectancy of women is higher than that of men (67.1) by 8.4 years and 75.5 years. However, mortality among women over the past two years has been much higher than among men, which caused a sharp decline in women's life expectancy (by 2.2 years).

Mortality, disability, and morbidity lead to loss of public health, which ultimately reduces the productivity and efficiency of work and, accordingly, the amount of GDP of the country. The macroeconomic review of the Eurasian Development Bank notes that the level of Kazakhstan's GDP under the influence of the pandemic has decreased by 2.6% (Vinokurov & Kuznetsov, 2021).

Therefore, there should be a continuous assessment of the loss of health capital based

on the analysis of indicators of morbidity, disability, and mortality, as well as the economic costs associated with them. This assessment is practically not carried out in the country.

To clarify the situation with coronavirus infection, as well as the quality of medical care, an expert survey was conducted among specialists and medical workers in Almaty. According to the purpose of the research, respondents were asked several questions. When asked: "What are the problems in the prevention and treatment of coronavirus?" 70% of respondents said there is no clear drug for the treatment of COVID-19 and that the treatment protocols are constantly changing, 20% - complications of comorbidities after a coronavirus infection, an increase in the burden on medicine, 10% - a shortage of personnel and their outflow abroad, low motivation of doctors.

When asked: "What are the main factors that will contribute to improving the quality of medical services?" 1/3 of respondents consider it necessary to competent medical personnel and increase the motivation of doctors, 30% of experts recommend reducing the burden on doctors and paperwork. The rest propose improving the regulatory framework of medicine that does not meet modern realities and requirements

Kazakhstan also lags behind most countries, including Russia, in terms of providing the population with medical personnel. According to 2020 statistics, Kazakhstan has 39.6 doctors and 95.5 medical personnel per every 10,000 of the population. The shortage of doctors in Kazakhstan amounted to 4,244 (Report of the Minister of Health of the Republic of Kazakhstan (2021). Therefore, there is an acute shortage of doctors and nurses in health facilities, especially in rural areas.

Government guarantees free medical care within its guaranteed scope (GAFMC). However, only some receives this amount of free medical care under compulsory social health insurance (CSHI), the unemployed and the self-employed are left behind. All this affects the quality of health capital and the availability of health services.

According to research by the Ministry of Health in 2019, patient satisfaction with the quality of medical services in Kazakhstan amounted to 48% (Report of the Minister of Health of the Republic of Kazakhstan (2021). The results of marketing research by interviewing patients of clinics No. 4, No. 17, and No. 5, conducted by the author and researcher Akhpanbayeva (2016), showed a similar value of this indicator - 46% (Akhpanbaeva & Esimzhanova, 2016). Economic and social losses due to harm to patients (long-term disability, incapacity for work, and reduced productivity) in the world reach trillions of dollars annually (OECD, 2022).

Contribution of research findings to science and society. Based on the research conducted by the author, the following conclusions and proposals can be drawn that will make a certain contribution to the development of science and society.

1. The study of literature on this topic shows that in Kazakhstan, there are practically no publications on health capital. The theoretical conclusions obtained during the study allowed the author to conclude the significance of investments in improving human health, and to identify the factors affecting this capital. Based on the conducted quantitative and qualitative studies, the author identified the existing problems in general in the health care of Kazakhstan, and the quality of medical services. Addressing these issues at both the public and private levels should lead to improved health capital.

The author hopes that this article will make a certain contribution to the science and

society of Kazakhstan, the results of which are aimed at improving the health of people in the post-coronavirus period and further.

2. Kazakhstan is significantly lagging in health financing, both from individual CIS countries and developed countries. In addition, the allocated funds are not always used effectively. According to the results of an expert survey conducted by the author in the period from November 2021 to March 2022, it revealed that the main reasons for this situation are the incorrect prescription and use of drugs, the lack of an effective structure, excessive supplies of equipment, corruption, etc.

3. Low quality of health services contributes to the poor health of the general population in the country resulting in significant economic loss and impacting the longevity of society overall.

For quality to become one of the foundations of the health care system, government and policymakers, leadership, and physicians must strive to ensure, through joint efforts, that: the high qualification of medical personnel, the high quality of health care services in all health care institutions; safe and effective use of drugs, devices, technologies and information (OECD, 2022). Quality requirements should be incorporated into the policies and processes of healthcare facilities.

The qualifications and competencies of medical personnel are important in improving the quality of health services. 30% of all those surveyed during this study believe that their treating doctors have low or very low levels of competence (Akhpanbaeva & Esimzhanova, 2016). The government must create an environment where medical personnel can update their skills in the field continuously and provide a forum for best practices exchange both domestically and with an advanced global institution.

The quality of the services provided is significantly influenced by the material incentives of medical workers. According to the Ministry of Health, in 2022, the average monthly salary of doctors in Kazakhstan amounted to 415 000 tenge (within 800 dollars) ("Kazinform" International News Agency, 2022), which is almost 15 times lower than the countries of the Organization for Economic Cooperation and Development, 22 - than in the USA, 25 times less than in Switzerland and 10 - in the UK (OECD Healthcare Salary Index, 2022). Such conditions of remuneration and stimulation of labor largely determine the non-consistency of the profession and the low labor motivation of medical workers in Kazakhstan.

This reduces the motivation of medical professionals for their work. Therefore, the government and private health institutions should look for opportunities to further increase the remuneration of doctors. It is necessary to develop financial mechanisms that support the constant improvement of the quality of services and incentive measures (tangible and intangible) based on the performance of medical workers.

4. The high workload of doctors leads to a decrease in the quality of medical care. The burden on one doctor currently exceeds 15-20% of approved norms. Therefore, it is necessary to revise the planned load of district doctors. Expert surveys revealed that 40-45% of doctors' time is attributed to doing paperwork leaving only 55-60% of their time for actual patient care. As a result, doctors have less time to examine patients, which sometimes leads to erroneous diagnoses and the prescription of improper treatment.

The government plans to increase the availability of a doctor to patients by reducing the burden on one GP from 1860 in 2021 to 1,700 of the attached population in 2023.

5. The level of professionalism of medical personnel capable of meeting the needs of the population for high-quality medical services should be maintained. The results of surveys revealed a huge disparity between the doctor qualifications and patient expectations of health care quality. At the global level, the annual costs associated with errors in prescribing or taking drugs are estimated at 42 billion US dollars, excluding wage losses, lost income due to lack of productivity improvements, and health system costs (OECD, 2022). It is necessary to create conditions for advanced training and the level of categorization of medical personnel. In this regard, it is necessary to study the best foreign experience, organize online meetings, forums, and conferences, invite well-known specialists from different countries, and create conditions for foreign internships. All this requires investment and allocation of funds from the state and private medical institutions.

6. In improving the quality of health services, including in a pandemic, the introduction of digital technologies that contribute to the availability of health services, as well as increasing the productivity and efficiency of doctors, is essential. Such technologies in medicine include means of monitoring the health of patients. These mobile applications provide medical support to the population, telemedicine, artificial intelligence, etc. It is necessary to create the infrastructure to study international best practices and provide technical support and management of information bases (Report of the Minister of Health of the Republic of Kazakhstan (2021).

7. To reduce mortality and increase life expectancy, it is necessary to carry out preventive measures such as timely laboratory studies, passing mandatory screening tests, and promoting a healthy lifestyle and proper nutrition. The experience of Western countries shows that timely prevention can reduce mortality from non-communicable diseases by 2-3 times (Prohorova & Medvedeva, 2019). Therefore, it is necessary to move from the concept of health care to the concept of monitoring, preservation, and promotion of public health. Effective management systems and organizations are needed for its implementation, including all patient routes - prevention, diagnosis, treatment, disease management, rehabilitation, and palliative care. To respond to existing threats to human health on time, it is necessary to create appropriate conditions for their detection and timely prevention.

8. Due to the increase in mortality and a decrease in the population's life expectancy in the context of the COVID-19 pandemic, this topic is of particular relevance. Therefore, the author intends to continue studying this topic in the future, especially in the direction of studying the degree of detection of factors in the development of human capital on the population's life expectancy.

5. CONCLUSIONS

This study examined the health care system as a health capital and found that it refers to investments in a person necessary to maintain and improve their health and performance.

The pandemic and its consequences have seriously affected both the country’s economy and the quality of human capital, reducing life expectancy and increasing mortality. The low motivation and unattractiveness of the doctor profession led to their

shortage.

The results of the respondents' survey in Almaty showed that only 46% of patients receiving treatment in medical institutions are satisfied with the quality of medical services received. Research has established that increased financing for healthcare, digitalization and the introduction of artificial intelligence in the industry, increased pay and advanced training of doctors, the use of modern medical equipment, staffing of medical personnel, and measures to increase the prestige of the doctor's profession, timely prevention and promotion of a healthy lifestyle will contribute to the improvement of the quality of medical services.

To ensure improvements in the quality of health capital, the priority for the state should be to revolutionize the healthcare system by investing in modern technology and educational support for the workers in the field. This should be accompanied by the continuous assessment of the loss of health capital based on an analysis of morbidity, disability, and mortality rates and any associated economic costs.

Based on collected and interpreted data, the further research agenda will be related to studying the factors that are related to life expectancy of the population. Because of the increased mortality rate, the life expectancy of the people was decreased in 1.7 years. The practical implementation of these studies will help with the policies in health care system, as well as in preventing activities to reduce the diseases leading to mortality.

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***Saira R.Yessimzhanova -** Doctor of Economic Sciences, Professor, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan. Email: saira_sr@mail.ru, ORCID ID: https://orcid.org/0000-0002-9921-3457.

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Comparative Evaluation of the Effectiveness of High-tech Project Management: the Experience of Japan, Israel and Kazakhstan

Assel Kozhakhmetova[1] | **Zhanar Tazhiyeva**[2]* | **Ainur Amirova**[3] | **Urikkul Sandykbayeva**[2]

[1] Kazakh-British Technical University, Almaty, Kazakhstan

[2] Al-Farabi Kazakh National University, Almaty, Kazakhstan

[3] Almaty Management University, Almaty, Kazakhstan

Corresponding author:
Zhanar N. Tazhiyeva - PhD candidate, Al-Farabi Kazakh National University, Almaty, Kazakhstan.
Email: zhanzari@gmail.com

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Abstract

The practical implementation of high-tech projects is becoming essential and relevant throughout the world in the era of the digitalization of various industries. The successful completion of high-tech projects will indeed support the development of domestic markets and the economy's competitiveness. It should be emphasized that high-tech projects often entail ground-breaking inventions and technology, which call for efficient administration. This study attempts to evaluate the connection between project management application procedures and the success of projects in the industrial sectors of nations like Israel, Kazakhstan, and Japan. The main focus of this paper is analyzing high-tech project management in the engineering, green production, chemical and atomic sectors of these three countries. As a result, Japan is ahead of Israel and Kazakhstan. This research also assesses the maturity levels of project management in chosen countries. The study used a systematic literature review, comparative analysis, quantitative data collection methods through interviews, statistical analysis and modelling. As a result, data were obtained on the project performance level in the selected countries, and approaches to managing high-tech projects in the industrial sector were proposed. A process methodology that may be implemented as a map for each set of projects has been created by assessing necessary success steps for high-tech projects. The study also recommends a number of instruments and techniques for Kazakhstan's high-tech project management. According to the findings of the statistical study, their application in the management of high-tech development will help the project be successfully completed.

Keywords: High-Tech Project Management, Project Management, Domestic Business, Digital Economy, Success Business Processes, High-Tech Marketing, Digital Marketing, Economic Management

SCSTI: 06.61.33
JEL Code: M21, N60, O32

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1. INTRODUCTION

Kazakhstan's economy is currently making a steady transition to an innovative route of development. High-tech project implementation is given much consideration in this regard. On December 12, 2017, the State Program "Digital Kazakhstan" was approved by Decree of the Government of the Republic of Kazakhstan No. 827. The main goal of the state program "Digital Kazakhstan" is the progressive development of the digital ecosystem to achieve sustainable economic growth, increase the competitiveness of the economy and the nation, and improve the quality of life of the population. On this basis, the topic of development and analysis of the theory and practice of managing high-tech projects is becoming increasingly important due to the ongoing expansion of global competitiveness and the acceleration of technological progress and is one of the most pressing issues at the present time.

To fulfill several tasks of the approved Digital Kazakhstan State Program, Kazakhstani high-tech initiatives are crucial from 2018 to 2022. One of the goals of the program can be achieved through the successful implementation of high-tech initiatives. The purpose of the "Digitalization of the Economy" is to offer a practical initiative consisting of legitimate high-tech initiatives for the digitalization and technological development of various sectors of the economy.

It should be emphasized that high-tech projects are often associated with innovative inventions and technologies that require effective management (Sharma et al., 2008). The successful completion of such initiatives will contribute to the development of domestic business and the competitiveness of the economy. High-tech initiatives use the latest innovations and results of research and development in priority industries and sectors of the economy, according to what is known about them. The main component of such projects is the latest high-tech tools (Kozhakhmetova & Asanova, 2018).

To help domestic trade in the world market, new technological developments are needed. As a result, Kazakhstan seeks to gain a reputation as a country open to developing of technologies and partnerships, as well as a platform for creating advanced digital innovations (Message of the President of the Republic of Kazakhstan to the people of Kazakhstan 2019). While the leadership of Kazakhstan is only developing its high-tech industry, the Japanese leadership has been successful because it offers high-quality goods and services at a reasonable price. Japanese enterprises were able to reduce the cost of goods and services while maintaining a decent level of quality due to the accompanying developed high-tech industry. Japanese firms have increased their share of the global market due to technological progress (Udaltsova et al., 2015).

In turn, Israel ranks second in the list of the most prominent high-tech centers, second only to the famous Silicon Valley in California. Israeli high technology is one of the most important sectors of the country's economy, accounting for more than 11% of the total GDP. This is the highest figure among the 30 largest industrialized countries, along with the United States.

According to Global Finance 2022, compared to 2020, Japan moved from 21st to 7th place in the ranking with a total score of 3.94, Israel from 29th to 10th with a total score of 3.86. However, Kazakhstan ranked 49th with -2.55 while he was 36th with a positive

cumulative score of 2.92409 (Getzoff, 2022).

The development of high technologies in Kazakhstan can be in its infancy. The USA, Japan, the EU countries, as well as Israel are the world leaders in high technologies. It should be recognized that Kazakhstan lags behind them both in terms of absolute indicators of scientific and technological development and in terms of the degree of industrialization and commercialization of the developments of the high-tech industry (Satybaldin et al., 2019).

The purpose of this study is to assess the relationship between project management application processes and project success in the industrial sectors of countries like Israel, Kazakhstan, and Japan. This paper's major objective is to analyze high-tech project management in these three nations' engineering, green manufacturing, chemical, and atomic industries. An evaluation of the chosen countries' project management maturity levels is also included in this research. The research offers a number of recommendations for tools and methods for Kazakhstan's high-tech project management. The statistical study's conclusions indicate that using them to manage high-tech development will aid in the project's successful completion.

2. LITERATURE REVIEW

One of the urgent problems of modern economic science is the organization of effective management of high-tech projects. Despite the high degree of development of high-tech projects in industrial activities, many theoretical and practical provisions remain open for study. The relationship between the evaluation level of the project effectiveness in the industrial sector and the choice of commercial organizations in the direction of innovation development and high-tech areas directly determines the effectiveness of an industrial company.

Many foreign and domestic scientists have studied various theoretical aspects in evaluating the effectiveness of the high-tech project management system. The main definitions and concepts related to the management of high-tech projects and programs are considered in the research of Zwikael O., Jacobs L., Lee J.C., and McCalman D.

The problem of developing high-tech projects of enterprises in the context of developing and implementing their strategies was studied in detail by authors such as Batkovsky A.M., Vikhansky O.S., Akoff R., Ansof I., Drucker P., Kaplan R., Kotler F., Forrester J. and others. The research of such authors as Shapiro V.D., Archibald R., Goldratt I., Diethelm G., Voropaeva V.I., Galperina Z.M., Lishchenko E.N., Mazura I.I., Popova V.L., Razu M.L. etc., revised modern approaches to project management and the features of their implementation in the industry in detail.

Domestic researchers, Adilova A.M., Bolatzhanuly T., Zholdasbaev O., Duysembekova G., Karmazina L., Mukhtarova K.S., Narbaev T., Nekrasova N, Sailaugin A. A.N., Akhmetova Z.B., Tsekhovoi A.F., Abdigapparova S.B. studied Issues of sustainable innovation, some current development trends of the worldwide high-technology and nanotechnology market, features of current development trends of the national economy's innovation-technological sector, innovation system and its infrastructure, innovation policy, subjects of the introduction of innovative technologies to the domestic market.

However, in the studies mentioned above, the conceptual foundations of nanotechnology project management, methodological aspects, evaluation of the organization's maturity level, and ongoing nanotechnology projects needed to be more thoroughly considered. There needs to be more research to analyze nanotechnology projects implemented in the Republic of Kazakhstan. Thus, the above facts prove the relevance and necessity of this study. In conclusion, a significant difference is expressed between the provisions of the theoretical concept of introducing high-tech projects and the actual functioning of industrial enterprises. Also, the research is primarily theoretical and needs a comprehensive approach to managing the transformation of high-tech behavior. Internal factors influencing an enterprise's choice of one high-tech project have yet to be studied in actual industrial activity. Moreover, in Kazakhstan and abroad, there are few studies on the impact of high-tech project management assessment on the performance and efficiency of industrial companies. The leading research is devoted to the state regulation of innovative high-tech projects in activities, analysis of effectiveness and evaluation of indicators for implementing all levels of projects.

Unfortunately, under state regulation, the issues of stimulating the effectiveness of evaluating the management and application of high-tech projects in industrial companies are the least affected. This work allows us to observe the gap between Kazakhstan and other countries in assessing the management of high-tech projects and the effectiveness of the functioning of industrial companies in today's challenging economic conditions.

This work differs from the work of the above authors in that it is the first work on a comparative analysis of the effectiveness of managing high-tech projects in such industries as engineering, green manufacturing, chemical, and atomic industries in Japan, Israel and Kazakhstan and gives recommendations for tools and methods for managing high-tech projects based on the experience of these two successful foreign countries.

3. METHODOLOGY

During the study, quantitative methods were used, such as a survey, statistical data analysis, comparative analysis, etc. A systematic approach to studying the theoretical foundations of high-tech project management was applied Below in Figure 1 is demonstrated the research model that is used to assess the main variables in the project performance of Israel, Japan and Kazakhstan.

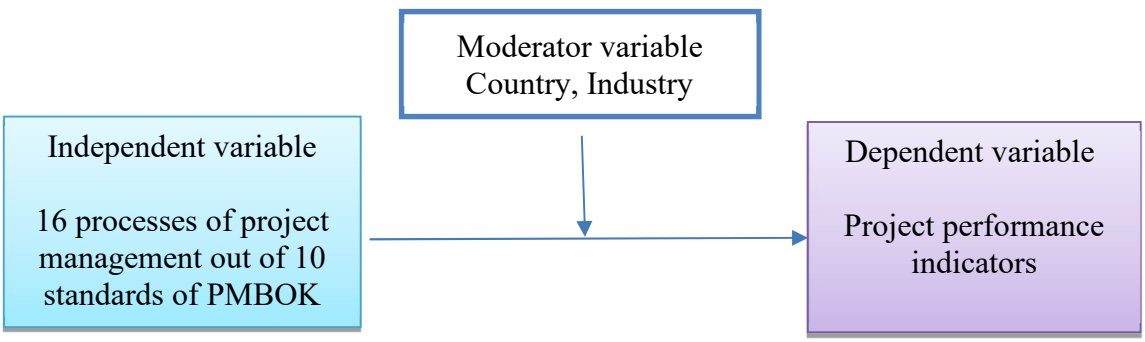

FIGURE 1. Research model

Source: compiled by the authors

According to Figure 1, project management processes, by the standard PMBoK (PMBoK 2017), were chosen as an independent variable, and project performance indicators were considered a dependent variable. The research model incorporates independent factors in the form of 16 planning processes from 10 knowledge domains and dependent variables in the form of time, cost overrun and customer satisfaction. The study analyzes this influence using the intensity of PM planning processes that exist in each PM knowledge area.

Data collection. The data for the research were collected as a survey. It was sent to the 2000 supervisors and project managers through Google Docs, and only 173 of them answered the questionnaire. For the final analysis, 150 answers were selected from them. The survey questions were to define the use of all processes in the countries. After the collection of the answers to the survey, the intensity of use of 16 processes was assessed on a Likert scale from 1 to 5. Obtained performance parameters from project managers were processed in Excel using the analysis of the variance function. The model has been tested and validated for the data's accuracy and validity. The results of the assessment are illustrated in table 1. Engineering, Green production, Chemical industry and atomic industry were selected as the main sectors to assess in the chosen three countries.

TABLE 1. Study sample

Project Sector	**Japan**	**Israel**	**Kazakhstan**
Engineering	28	24	19
Green production	20	41	18
Chemical industry	24	20	21
Atomic Industry	8	5	7
Note: compiled by the authors based on references (Zwikael et al., 2005)			

According to the data from Table 1, Japan is leading in Engineering, Chemical and Atomic Industries, while Israel is at the top in green production. Kazakhstan stands in between these two countries. It is essential to highlight that by the performance parameters, Kazakhstan is ahead of Israel in such indicators as the Chemical and Atomic Industry. It is also important to note that the gap between indicators is not as big as expected. The data for the Japanese and Israeli projects were obtained from a study conducted by Zwikael et al. (2005). Also, the results of the obtained questionnaire were evaluated by SPSS Statistics. Results are significant, according to the validity test for the model are presented in table 3.

4. FINDINGS AND DISCUSSION

A content analysis conducted as part of the study allowed for identifying the characteristics of the usage of knowledge domains by project managers in Japan, Israel, and Kazakhstan (Table 2). These outcomes were also contrasted with the findings of the statistical analysis.

TABLE 2. Maturity level of PM in Japan, Israel and Kazakhstan

No.	Region knowledge of UE	Low significance	High significance
1	Integration Management	Japan	Israel
2	Scope	Japan	Israel
3	Time Management	-	Japan, Israel, Kazakhstan
4	Cost Management	Israel	Japan, Kazakhstan
5	Quality management	Kazakhstan	Japan
6	HR Management	-	Japan
7	Communication Management	-	Japan
8	Risk Management	Japan, Israel	-
9	Procurement management	-	-
10	Stakeholder Management	-	Japan
Note: Compiled by the authors based on references (Zwikael et al., 2005; Globerson & Zwikael, 2002; Dyussembekova, 2016; Lee & MacCalman, 2008; Jonathan et al., 2008)			

As shown in Table 2, Japanese managers are least focused on integration, content and risk management, with an emphasis on quality management, human resources and communications. As for Kazakhstan, compared to Israel, it pays more attention to cost management, leaving quality and risk management without due control. Overall, Japanese project managers are more aware of the region's knowledge of the UE than Kazakhstan and Israel.

The concept that there does not exist a single widely used technique or algorithm for project management is at the core of high-tech project management. The management strategy is determined by the characteristics of a particular circumstance and by evaluating the principles or techniques that will produce the best results under the conditions. Despite this, there are specific processes in the life cycle of any project. Table 3 below demonstrates a comparative assessment of the use of PM processes in Japan, Israel and Kazakhstan.

TABLE 3. Comparative assessment of the use of PM processes in Japan, Israel and Kazakhstan in 2020-2021

No.	PM Processes	PMPQ index/ Japan	PMPQ index/ Israel	PMPQ index / Kazakhstan
1	Defining activities	3.7	4.1	4.0
2	Recruitment	3.3	3.6	2.8
3	Project plan development	3.7	4.0	2.4
4	Resource planning	3.5	3.7	2.9
5	Estimating activity durations	4.0	4.2	3.6
6	Scope planning	3.9	4.1	3.3
7	Procurement planning	2.9	3.0	2.6
8	Organizational planning	3.7	3.8	3.3
9	Risk management planning	2.8	2.8	1.9
10	Quality planning	3.0	2.9	2.6
11	PM sequence planning	3.6	3.7	3.1
12	Project Schedule Development	4.1	4.0	3.8

13	Volume definition	3.8	3.7	3.0
14	Cost budgeting	3.4	3.2	3.4
15	Communication plan	2.9	2.4	1.5
16	Procurement estimation	4.1	3.0	3.2
Note: Compiled by the authors				

According to this table, Israeli project managers outperform Japanese and Kazakh project managers in terms of the intensity of project management processes. According to the data in the table, Kazakhstani managers lag in many positions, such as communication planning, quality and risk management, etc. Moreover, Kazakhstan is behind Japan by 15 indexes, except for the "Defining activities" process.

The project's time and actual cost deviate from those expected due to unforeseen internal conditions and unpredictable changes in the project's external environment. Moreover, the needs for which the project was created may change over time (Archibald 1992). This can lead to low customer satisfaction. The following figure illustrates indexes of four indicators cost overrun, schedule overrun, technical performance and customer satisfaction in Kazakhstan, Israel and Japan (figure 2).

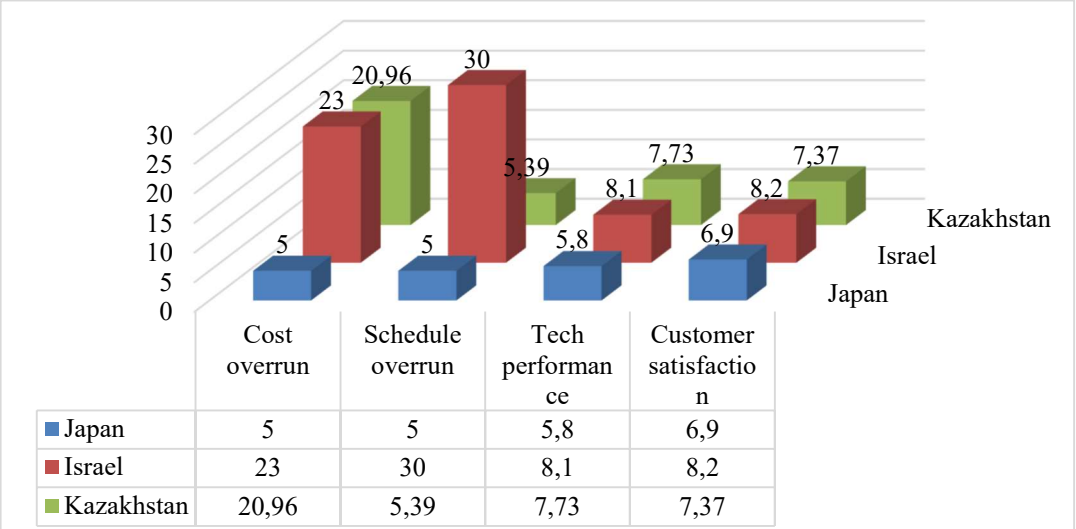

FIGURE 2. Comparative analysis results of the performance indicators of high-tech industrial projects in Japan, Israel and Kazakhstan in 2020-2021 years

Source: Compiled by the authors

As shown in Figure 2, Israel and Kazakhstan have high-cost variances, indicating that industrial projects are over budget. As for the deviation from the deadlines, it can be concluded that Japanese projects are often completed on time. Surprisingly, the lowest customer satisfaction level is observed in Japan, despite the well-established image of a quality-oriented country. The following table presents critical project management processes that have a more significant impact on performance indicators.

TABLE 4. Critical success factors for high-tech initiatives in the Republic of Kazakhstan's manufacturing sector in 2020-2021

PM processes	Chemical industry	Green production	Engineering	Atomic Industry
Developing a project plan	+	+	+	+
Content planning			+	
Scope definition		+	+	+
Defining activities	+			+
Estimating activity durations	+			
Schedule Development		+		+
Resource planning			+	
Cost estimation	+			+
Budget development				
Quality planning	+		+	
Organisational planning				
Recruitment planning		+		
Communication planning	+			
Risk Management planning		+		+
Procurement planning		+		
Stakeholder planning				+
Note: compiled by the authors				

Thus, the statistical analysis allowed us to identify processes that affect cost, timing and customer satisfaction more than other processes in Kazakhstan. The most crucial PM process for all the chosen sectors is "Developing a project plan", and the second, by its importance, is "Defining the project's scope". However, the minor critical processes are "Budget development" and "Organizational planning". This data will allow the focus and resources to be directed to these processes to increase project performance.

Ten knowledge domains are used to create the crucial success processes for each set of high-tech initiatives. Based on the recognized important regions, appropriate PM methods were chosen following the PMBoK standard. Network Diagrams, WBS, Peer Review, the Critical Path Method, Gantt Charts, and Information Systems have all been cited as being crucial for many high-tech projects.

5. CONCLUSIONS

In accordance with the findings of three types of analyses, including maturity level, comparison of the usage of UE procedures, and comparison of performance indicators of high-tech industrial projects in three countries. Kazakhstan is less adept at managing high-tech initiatives than nations like Israel and Japan.

Processes essential to high-tech project success in the industry field were further analyzed, which gives us an understanding of what processes affect the cost, time and customer satisfaction more than other processes. As a result of the data obtained from the statistical analysis, the processes that need to be spent more time in the project's life cycle for Kazakhstan in the field of high technologies is “Developing a project plan”.

The assessment of critical success processes for high-tech projects has allowed the construction of a process algorithm that can be used as a map for each group of projects. Also, the research suggests several tools and methods for successful high-tech project management in Kazakhstan. Their use in the management of high-tech projects will contribute to the successful completion of the project, as shown by the statistical analysis results.

Kazakhstan has the lowest outcomes in terms of project success rate and application of PM techniques. Additionally, the study concludes that a factor in failure is a lack of organizational support. In order to effectively employ PM techniques and methods, Kazakh managers should research international experience. Their project management abilities are enhanced. It may be possible to achieve this improvement by hiring and training certified PMs.

Policy recommendations: It is important for Kazakhstan to understand the experience of international high-tech project management tools in practice. For this reason, attracting foreign managers for experience exchange is necessary. The solution in the short term may be to create incentives, such as support for research and funding for foreign scientists, assistance with relocation to Kazakhstan, and the introduction of favorable migration rules. In the long term, there may be scholarship programs, and partnerships have been established with foreign universities to create a fund to support scientific research and internships.

National cultural differences in all phases of project management are not covered, which is one of the study's limitations. However, the findings may be expanded upon in future research pertaining to the whole project life cycle. Data from a constrained range of nations and sectors are considered in the study. The following studies should look at planning quality in other nations, particularly in developing nations like Kazakhstan, since the literature indicates that there aren't many studies about PM in these nations. Additionally, there is a significant selection of other untapped businesses that might be taken into account in future research.

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AUTHOR BIOGRAPHIES

Assel K. Kozhakhmetova – PhD, Assistant Professor, Kazakh-British Technical University, Almaty, Kazakhstan. Email: aselekdream@gmail.com, ORCID ID: https://orcid.org/0000-0002-3077-2023

***Zhanar N. Tazhiyeva** - PhD candidate, Al-Farabi Kazakh National University, Almaty, Kazakhstan. Email: zhanzari@gmail.com, ORCID ID: https://orcid.org/0000-0002-1730-6490

Ainur U. Amirova - Candidate of Economic Sciences, Acting Associate Professor, Almaty Management University, Almaty, Kazakhstan. Email: ainura20480@mail.ru, ORCID ID: https://orcid.org/0000-0003-3298-6110

Urikkul D. Sandykbayeva – Candidate of Philosophy Sciences, Senior Lecturer, Al-Farabi Kazakh National University, Almaty, Kazakhstan. Email: sandykbaeva@mail.ru, ORCID ID: https://orcid.org/0000-0002-2818-8167.

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Mechanisms for Overcoming Intellectual Inequality of Regions of Kazakhstan

Dana Kangalakova[1]* | Issatayeva Gulzhan[2] | Temirova Zhannat[2]

[1] Institute of economics Committee of science MSHE RK, Almaty, Kazakhstan

[2] South Kazakhstan State Pedagogical University, Shymkent, Kazakhstan

Corresponding author:
Dana Kangalakova - PhD, Institute of economics Committee of science MSHE of the Republic of Kazakhstan, Almaty, Kazakhstan
Email:dmuratbekovna@mail.ru

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Abstract

In recent years, much attention has been paid in economic research to human capital, human resources, a new technological era, a new socio-economic structure, rapid development, the main driving force of which is a man and his knowledge. Many invest in the development of the nation's mind from an economic point of view, the intellectual potential of human capital itself, and the resources spent are returned by discoveries in science, new technologies in industry and the growth of the country's GDP. Unlike other developed countries, Kazakhstan does not use its full potential for the development of the country's economy. Therefore, in recent years, attention has been paid to the intellectual potential of the nation and the intellectual potential in the regions, the intellectual potential among young people. There is no consistency and scientific validity in the effective use of intellectual resources of the state and regions and their management. That is why the study of the raised issue is relevant. The purpose of the study is to discuss the level of intellectual potential and propose mechanisms to eliminate inequality in the regions. In the course of the study, methods of deduction, induction, synthesis, analysis, complex index evaluation and ranking were used. The practical significance of the research results is explained by the fact that public authorities can use the mechanisms of intellectual potential, and the scientific significance can be a continuation of the subject of intellectual potential research.

Keywords: Economics, Intellectual Potential, Knowledge, Region, Ranking, Inequality

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1. INTRODUCTION

The modern technological era is characterized by an increasing role and importance of human intelligence in the progressive development of society. It causes a real shift from an economy based on the production of goods and services of a material nature and having tangible resources in its assets to a "new economy". The most important asset is intangible resources - intelligence, information, and knowledge, to the economy, producing and materializing this knowledge.

Scientific understanding of the factors and features of the development of intellectual potential in the regions shows the advantages and weaknesses of each of them. In general, with an effective approach, it can accelerate the processes of building and technological modernization of industries and the economy as a whole. In developed countries, much attention is paid to the issues of intellectual potential. They invest huge funds in the development of the nation's intelligence, which will be returned by discoveries in science, new technologies in industry and an increase in the country's GDP.

The Message of the President of the Republic of Kazakhstan to the people of the country dated September 1, 2021 notes the importance of education and science and support for talented, intellectually developed children and youth of the country (Message of the President of the Republic of Kazakhstan, 2021). Kazakhstan needs to increase the intellectual potential of the population because the modern digitalized society is characterized by an increasing role and importance of the intellectually developed population. In developed countries, much attention is paid to the development of the intellectual potential of the population, and developing human individuality. The development of the individual and the population leads to the development of innovations and an increase in the country's GDP.

Today, intellectual potential has a weak trend of development in the country. In the context of regions, only cities of republican significance and industrial areas have the opportunity to develop intellectual potential, and there are also areas where intellectual potential has a low level (Kireyeva et al., 2022). Based on the socio-economic development of the economy, it can be noted that there is inequality in intellectual potential development throughout Kazakhstan's territories. This study raises the issue of reducing the imbalance between regions in developing intellectual potential. Therefore, the purpose of the study is to discuss the level of intellectual potential and propose mechanisms for eliminating inequality in the regions.

The following research algorithm will be used in the research: a review of the literature on the problem of inequality among regions, and countries about intellectual potential (section 2), justification of the optimal methodology for analyzing and assessing the level of intellectual potential of the regions of the Republic of Kazakhstan (section 3), analysis, collection and processing of statistical data on the level of intellectual potential (Section 4) with the presentation of relevant conclusions (section 5).

2. LITERATURE REVIEW

An important impetus to the development of the category of intellectual potential was the development of the theory of human capital, which was considered in the early works of Becker (1962), Schultz (1971), Mintzer (1996). A significant influence on the

formation of the category of intellectual potential, was exerted by the works of the Austrian economist Schumpeter (1982), whose ideas became the basis for the evolutionary theories of economics that emerged in the early 80s. He noted that economic development is based on innovative processes, the essence of which is the implementation of new combinations of factors and conditions of economic activity.

Stewart (2007) and Karginova (2015) investigated the influence of the quality of intellectual resources and the degree of their involvement in social production on the level of national wealth in individual countries. At the same time, wealth, in their opinion, consists of human resources, production assets and natural resources. Research in this area is being actively carried out at present (Garafiyeva, 2014; Plis, 2014; Wilbowo, 2016).

In recent studies, the possibilities of intellectual potential in different areas are studied (Murodova, 2020). The importance of developing intellectual potential in the field of education, Zuntova (2021). Studies the need to increase intellectual potential in universities and improve the quality of Education. There is also some research regarding the importance of managing intellectual potential. If some relate to the use of intellectual potential in the implementation of communication in the application of innovation in enterprises (Ostrovska, 2019; Trusova et al. 2021) some reveal the importance of intellectual potential in improving the relationship between business, education and science (Shkoda et al., 2020). Other scientists are investigating whether there is a positive relationship between culture and intellectual potential (Shipunova et al*., 2018).*

Summing up, we can say that the influence of intellectual potential on the country's economy is important. Intellectual potential can increase not only economic growth, but also contribute to the development of any industry, even an enterprise. Similar studies to assess the level of intellectual potential and mechanisms to overcome the inequality of intellectual potential of Kazakhstan have not been conducted before.

3. METHODOLOGY

The research work consists of two levels. At the first level, a comparative analysis of the levels of intellectual potential in the regions of Kazakhstan is carried out. Methods of Integral indexing and ranking were used in the assessment. The composition of the indices is shown in Table 1.

TABLE 1. Indices of intellectual potential

Summary indexes	Individual indexes/ regions
Science Index	* index of regional coverage of researchers
	* science financing index in regions
	* index of training of scientific personnel of Regions
Education index	* university training index
	* college training index
	* index of secondary education coverage of students
Innovation Index	* index of innovation activity of enterprises
	* innovative performance index
	* computer literacy in the region
Culture Index	* theater coverage index

	* index of library coverage
	* index of museum coverage
Note: Compiled by authors	

According to the proposed methodological approach there were calculated intermediate Science, Education, Innovation, Culture indicators using the arithmetic mean method. It is calculated for each value according to the formula (1):

$$A = \frac{a_{i-}\mu}{\text{p}} \qquad (1)$$

Where A - standardized assessment,

a – indicator initial value,

μ - arithmetic mean,

p - standard deviation.

Further, to derive the indicator of each block, the average value of the normalized data by region is calculated.

These values were found for all groups of indicators: scientific, educational, innovative, and cultural pastime.

The vulnerability of the regions was found according to the formula (2):

$$I_{IntelPot} = \frac{Scie_{m_i}+Edu_{m_i}+IN_{m_i}+Cul_{m_i}}{4} \qquad (2)$$

Where $I_{IntelPot}$ – integral index of intellectual potential;

$Scie_{mi}$ – scientific potential index;

Edu_{mi} – educational potential index;

IN_{mi} – innovation potential index;

Cul_{mi} – cultural pastime index.

At the second level, proposals are given to overcome inequality in the regions of Kazakhstan using general scientific methods. Proposals are carried out within general scientific methods using the methods of deduction, induction, comparative analysis, conceptual formulation and logical discussion.

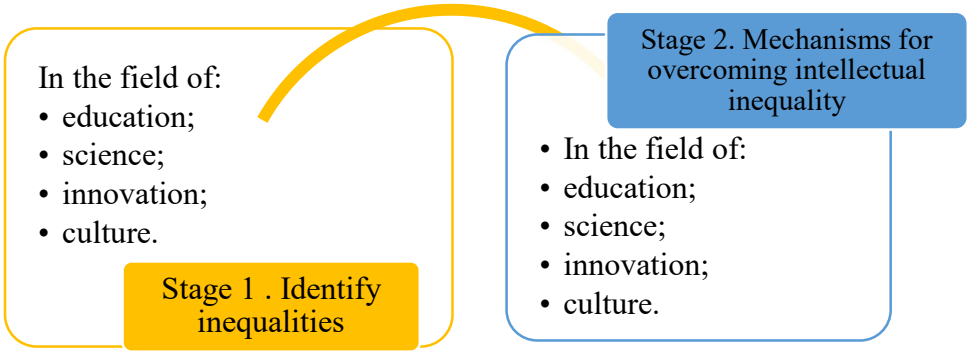

FIGURE 1. Stages of proposals

Note: Compiled by the authors

The research methodology will provide an opportunity to assess the level of intellectual potential in the regions of Kazakhstan, identify inequalities and provide mechanisms for balanced development of intellectual potential.

4. FINDINGS AND DISCUSSION

According to the diversity of socio-economic development of the regions of Kazakhstan, the development of intellectual potential is also diverse. However, in some regions, all conditions for high intellectual potential are created, and in some regions, these conditions are poorly covered. For the same reason, the level of intellectual potential reflects polarization by region. Polarization in the regions in the development of intellectual potential can be observed in accordance with the assessment for 2020 (Table 2).

TABLE 2. Level of development of intellectual potential, index method (2011 and 2020)

Region	SUMMARY INDEX	Rank	SUMMARY INDEX	Rank
Akmola	0,514	13	0,946	15
Aktobe	0,440	16	1,025	14
Almaty region	0,998	4	1,240	10
Atyrau	0,551	12	1,090	12
West Kazakhstan	0,666	9	1,361	6
Zhambyl	0,656	10	1,355	7
Karaganda	0,399	17	0,740	17
Kostanay	0,753	7	0,942	16
Kyzylorda	0,483	15	1,150	11
Mangystau	0,792	6	1,435	5
Pavlodar	1,126	3	1,310	9
North Kazakhstan	0,592	11	1,080	13
Turkestan	0,848	5	2,110	2
East Kazakhstan	0,495	14	1,345	8
Nur-Sultan	1,154	2	1,450	4
Almaty	1,730	1	2,480	1
Shymkent	0,704	8	1,970	3
Note: Compiled by authors				

The highest indicator of the intellectual potential development index is calculated in Almaty with a value of 2.4, the lowest index is 0.7 in Karaganda region and 0.9 in Kostanay region. If the arithmetic mean of the index of intellectual potential is 1.5 values - Astana and Mangystau region should be in the index value, according to the rank, the regions occupy 4 and 5 positions. The average value of the intellectual potential index in the regions should be regions with ratings of 8 and 9, i.e. East Kazakhstan region and Pavlodar region.

During the competition, it was proved that the polarization of the lowest and highest intellectual potential development index is high, and the arithmetic mean of the intellectual potential development index is not equal to the factual mean. From this

observation, the industrial regions of Kazakhstan, Karaganda and Kostanay regions show a weak level of intellectual potential. Indeed, in terms of indicators that affect intellectual potential, some factors indicate weak indicators. For example, in Karaganda region, there is a need for more scientists engaged in science. Entrepreneurs' innovative activity is low because all production is in the framework of raw materials production. However, if the level of intellectual potential is of a low nature, then the socio-economic level indicates an above-average level. Therefore, it is indicated above that Kostanay and Karaganda regions need targeted programs aimed at developing high-quality education, science and innovation.

In general, the establishment of the polarization of the development of intellectual potential is not due to the inefficient use of resources in the state, but to the following reasons. Due to the need for special social institutions – the social situation in the regions is different. The worse the social situation of a person, the worse his intellectual development. "I don't know," he said. Develop new tools and technologies for managing regions. The management system in each region is different, and it all depends on the professionalism of the manager. The assistance of "elites" in the regions in the development of the intellectual potential of the region, etc.

If to consider the components of the development of intellectual potential in private. It can be said that the inequality in the field of education lies in the differences in the location of schools and universities in the regions (Table 3). Universities are especially concentrated in large cities, because the quality of education in large megalopis is high, and qualified teachers and professors/academics share their experience. Although there is a teaching staff in universities in the regions, it is different from the size in a large city and is of low quality. If we consider schools, then in some regions, there is a shortage of schools (Kyzylorda, Zhambyl, cities of Republican significance), and there are up to 30-40 children in one class, and in some regions (North Kazakhstan region) the number of children in schools is small. In addition, it can be seen that schools in one region are equipped with all the necessary equipment, and schools in some regions are old, completely devoid of learning. Table 3 shows types of inequality in the development of intellectual potential.

TABLE 3. Types of inequality in the development of intellectual potential

Parts of the inequality	**Explanation**
INEQUALITY IN EDUCATION	Differences between regions in the field of Education: - Diversity of the number of schools, universities; (793 schools in Almaty region, 211 schools in Atyrau region; 65 universities in cities of Republican significance in universities, 57 universities in other regions; - Variety of technical and material base coverage; - The diversity of the level of qualification of teachers, etc.reasons. (In the North Kazakhstan region, the number of professors and teachers at universities is 330 people, in Almaty-8 188 people).

INEQUALITY IN THE FIELD OF SCIENCE	Differences between regions in the field of science: - Diversity of state financing (in terms of the amount of R&D expenditures in Kazakhstan in 2021, 109,332. 7 million tenge, of which 42,738. 7 million will be spent on the city of Almaty, 411.1 million will be spent on the N.Kazakhstan region). - Diversity in the transmission of scientific heritage; - Diversity of research infrastructure, etc. (in terms of the number of research institutions in Kazakhstan, there are 438 units, of which 139 in Almaty, West Kazakhstan region, Zhambyl region, Pavlodar, Turkestan regions, 9 units in Mangistau region).
INEQUALITY IN INNOVATION	Difference between regions in the field of innovation: - Diversity of the level of activity of innovation processes (innovation activity in Astana is 13.5%, in Pavlodar region-5.2%); - Diversity of the level of access to innovative technologies; - Diversity of coverage levels of computer literacy and digitalization; - Diversity of concentrations of innovative enterprises, etc. (28 thousand innovative business entities in Kazakhstan, of which 10 thousand are concentrated in Almaty and Astana, 635 enterprises are concentrated in Kyzylorda region, 732 in Zhambyl region).
INEQUALITY IN THE CULTURAL SPHERE	Difference between regions in the cultural sphere: - Diversity of cultural levels; - Few talented young people in the cultural sphere, poor level of talent support; - Variety in demand for cultural events (teart/Museum); - Low level of advertising of performance / concert events, etc.
Note: Based on official statistics compiled by the authors	

Inequality in the field of science is primarily due to the source of funding allocated by the state. While highly economically and socially developed regions receive high funding, weak regions needs more funding. If all regions are financed equally, there is a probability that weak regions will not be able to master the allocated funds. In addition, the diversity of areas of scientific interest in the regions, for example, agronomic, soil composition of the land, quality of livestock fields, and production of finished products from raw materials in industrial regions are relevant. In addition, in the underdeveloped regions of production and agricultural sector, questions related to trade and construction are interested, and in the developed regions-the development of innovative technologies. Here, in the field of Science, the most important issue is the diversity of the distribution of scientific infrastructure in the regions. For the development of science at the world level, it is necessary to have the same equipment of scientific laboratories as at the world level. However, it can be concluded that the state of scientific infrastructure in Kazakhstan is poor since the latest updates were made from the time of Soviet power, which remains in the current state.

The inequality between regions in the innovation sphere is evidenced by the level of activity of innovation processes by region. Accordingly, inequality in the implementation of innovation processes leads to inequality in the development of intellectual potential between regions. The difference in the distribution of innovative technologies in the regions indicates inequality in the field of innovation. In addition, the development of computer literacy and digitalization is high in cities of Republican significance and industrial regions and low in Kyzylorda, West Kazakhstan region, etc.

That is, differences in the different development and development of the development component of intellectual potential in the regions lead to polarization. To eliminate polarization, we recommend the following mechanism:

Resource coverage. Providing regions with missing resources in the field of education

in order to develop intellectual potential. That is, full-fledged equipment of schools in the regions on demand (up to 35-40 students in one class in cities of Republican significance); replenishment of scientific laboratories with modern means (creation of a laboratory for the study of pharmaceutical preparations in Aktobe region, creation of a laboratory for agriculture in Kostanay region, etc.; coverage of innovative technologies according to the potential of the regions (Organization of stimulating tax measures for the introduction of technologies in Pavlodar, Karaganda and East Kazakhstan regions and identification and stimulation of talented young people in the field of culture.

Institutionalization. Development of Education, Science, Innovation and cultural spheres within the framework of sustainable economic development and technological modernization.

Informatization. Bringing the current state of the regions to the true center. To promote the development of intellectual potential among the population with the help of informatization, to introduce young people to education, to call for science. Organization of competitions to identify talented young people in drawing, acting and singing. Encourage talented young people.

Implementation of program-targeted projects. Organization of targeted projects in four components that stimulate the development of intellectual potential.

It is necessary to have standards for indicators in the regions regarding the development of intellectual potential. For example, in Kazakhstan in the 2021/2022 academic year, there are 7,481 general education schools where 1,762,161 students will study. On average, 283 students should study in 1 school in the Republic.

In order to develop and strengthen intellectual potential, we propose the following standards based on the national average:

- one school for 283 children by region;
- one university for 2649 students by region;
- financing of R & D in the regions of at least 6,431.3 million tenge, etc.

Of course, the standards in question are relatively affected since the probability is high. However, there is a need for standards in planning the intensive development of intellectual potential.

5. CONCLUSIONS

Developing intellectual potential implies strengthening, building up, and stimulating the intellectual potential previously formed in Kazakhstan. The development of intellectual potential forms the quality of human potential, which in the future will provide competitive advantages in modern society. The main resource of the global informatization society is a person who can acquire knowledge, use it creatively, and also participate in generating new knowledge. Training a highly intelligent person can give an impetus to accelerated economic growth.

Further, in the domestic and foreign literature, the concept of intellectual potential is new and pioneering, by 2020 there was little information about the development of intellectual potential. However, the importance of this process has become popular in recent years. Scientists began to emphasize the importance of developing the intellectual potential not only of the country but also to use it in the development of industry and

enterprises.

Based on our analysis and discussion, polarization is observed in the development of intellectual potential. It is reflected, first of all, in the result of the index assessment. That is, according to the integrated, comprehensive index of intellectual development, the first place is occupied by Almaty city with 2,480, the last places are occupied by Karaganda and Kostanay regions with 0.9 and 0.7. The assessment was based on the mutual standardization of factors related to the development of intellectual potential. Here, the dispute may be related to the Karaganda region. Here the difference between a large number of people in the region and the distribution of indicators is high. For this reason, the indices in the fields of education and science show a low result. Secondly, polarization in terms of the components of intellectual potential. For example, in the field of education, the differences between the regions are: 793 schools in Almaty region, 211 schools in Atyrau region; 65 universities in cities of Republican significance, 57 universities in other regions; in the North Kazakhstan region, the number of professors and teachers in universities is 330 people, in Almaty-8 188 people, etc.

The first is to provide the regions with the missing resources in the field of education in order to develop intellectual potential. The second is the development of Education, Science, Innovation and cultural spheres within the framework of sustainable economic development and technological modernization. The third is to promote the development of intellectual potential with the help of informatization among the population, to introduce young people to education, and to call for science. The fourth is the implementation of program-targeted projects. Fifth-it is necessary to have standards for indicators in the regions related to the development of intellectual potential.

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AUTHOR BIOGRAPHIES

***Dana M. Kangalakova** - PhD, leading researcher, Institute of economics Committee of science MSHE RK, Almaty, Kazakhstan. Email: dmuratbekovna@mail.ru, ORCID ID: https://orcid.org/0000-0001-8388-8559

Gulzhan B. Issatayeva – Candidate of Economic Sciences, senior lecturer, South Kazakhstan State Pedagogical University, Shymkent, Kazakhstan. Email: isataeva7@mail.ru, ORCID ID: https://orcid.org/0000-0002-1388-5202

Zhannat Zh. Temirova - Candidate of Economic Sciences, South Kazakhstan State Pedagogical University, Shymkent, Kazakhstan. Email: zhannat_temirova@mail.ru, ORCID ID: https://orcid.org/0000-0002-0837-0319

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Internal Reasons for the Low Efficiency of QMS in many Kazakhstanis Enterprises

Zhassulan Kushebayev[1]* | **Gusman Moldashev[2]** | **Karlygash Daurenbekova[3]** | **Aruzhan Jussibaliyeva[4]**

[1] Narxoz University, Almaty, Kazakhstan

[2] Kazakhstan Engineering and Technology University, Almaty, Kazakhstan

[3] Almaty Management University, Almaty, Kazakhstan

[4] LLP Scientific and Production Enterprise Innovator, Astana, Kazakhstan

Corresponding author:
Zhassulan Kushebayev – PhD candidate, Narxoz University, Almaty, Kazakhstan. Email: kushebayev@gmail.com

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Abstract

The article presents the results of a comprehensive analysis of the information of domestic authors, as well as prominent scientists and experts from far and near abroad in the field of studying the problems of the influence of internal environment factors on the effectiveness of life, self-support and improvement of quality management systems (QMS) and total quality management (TQM) of companies and firms certified according to the criteria of international standards ISO 9000 series. A general global trend of a sharp decrease in customer interest in QMS and TQM certification to ISO requirements in all areas of production and services has been established over the past 10 years, including in the Republic of Kazakhstan. Thus, according to ISO, the number of certified enterprises of all levels in the country today compared to 2010 has decreased three times. The authors believe that the solution to the problem of improving the efficiency of the QMS and TQM lies in the permanent improvement of the corporate culture of the personnel of the enterprise by the top management based on the transformation of their mentality through the development of the principles of leadership, process approach, job improvement, staff involvement and management of employee relations.

Keywords: Business Management, Performance, Quality Management System, Organization, Efficiency, International Organization, Standardization

SCSTI: 81.81.05
JEL Code: K13, L15, M21

1. INTRODUCTION

The importance of quality management systems is essential to the economy of any country. The quality management system (QMS) is a system through which an organization can establish the implementation of processes within the organization with the best efficiency, allowing it to achieve goals and policies in the field of quality. Quality objectives should be determined by the coincidence of the needs of the consumer, the enterprise, and society. Also, this system contributes to the increase of financial and economic performance of organizations (Chiarini, 2019). The most important tasks in developing of QMS are the maximum automation of process and project management in general and individual QMS processes in particular. The presence of a quality management system certificate proves that the product is safe for the life and health of the consumer. Thus, certification of a quality management system is an established form of confirmation of product compliance with the requirements of specific standards. Implementing a clear and appropriate QMS in an organization is the best solution that creates long-term benefits for the companies. QMS covers the entire process of creating products, starting from obtaining raw materials and including all subsequent stages, and ending with its sale to the end consumer. Each link in this chain, which can affect product quality at any stage, is part of the quality management system. Evaluation of the effectiveness of the quality management system is one of the most important and challenging areas in quality management. The studies of independent international experts in the field of quality management found that 50-90% of enterprises in various countries of the world implement quality management systems formally. This means that they have false certificates of compliance of their management systems with the international standards ISO 9000 series requirements. For example, the effectiveness of the QMS at enterprises in Japan is 50, in the USA 40, in Western Europe 30, and in the CIS countries 20-10%. This can be interpreted that out of 1 million certified enterprises in the world, 700 thousand have formal and fictitious QMS that could not work in practice (Solovev, 2017; Adler, 2009; Versan, 2007). In addition, specialists from the consulting company Persistence Market Research predict a 5-fold decline in the global market turnover for management system certification services for compliance with ISO requirements from 2017 to 2025 (Novotest, 2019).. According to their calculations, by the end of 2025, this figure will reach $2.8 billion, while in 2017 the global certification services market generated revenue of $11.8 billion. At the same time, it is noted that many companies refuse certification due to the increase in the intensity of document flow, the increase in the complexity of doing business, and the high price of services. A similar downward trend in consumer interest in ISO standards takes place in our country. The number of certified enterprises according to ISO in the Republic of Kazakhstan at the beginning of 2022 was 4.4 thousand and compared with 2010 decreased by 2.5 times.

Quality management issues acquire an exceptionally high degree of relevance in the context of the formation and development of market relations in Kazakhstan. At a new stage in the development of Kazakhstan, government strategies clearly define the prospects for sustainable competitive growth of the country's economy. The significance of the study is consistent with the strategy "Kazakhstan - 2030" which outlines 30 specific areas of development, in particular, the fourteenth direction - the speedy and widespread

introduction of technical standards that meet international requirements. Therefore, this article aims to uncover the internal reasons for domestic enterprises' low efficiency of QMS. Although extensive research has been carried out on QMS, very few studies explain why the quality management system does not work effectively in the case of Kazakhstan.

2. LITERATURE REVIEW

Many small and medium enterprises often encounter various difficulties in realizing ISO 9001 quality system standards. According to Chiarini (2019) and Mohammadi et al. (2021), it is going to be hard to implement QMS in organizations because of various issues such as the deficit of appropriate resources (i.e., human resources, time, money), improvident audits as well as poor involvement of staff. In the same vein, the importance of the involvement of human capital in successfully implementing QMS in firms was mentioned in the studies of Mulhaney et al. (2004). They believe that a striking problem in the implementation of the QMS is the dissatisfaction of the staff, which depends on the lack of motivation and stimulation. The poor involvement of personnel in quality management activities and the absence of an incentive system decrease employee satisfaction and negatively affect the results of their activities. In another significant study, Sousa-Poza et al., (2009) explained the inefficiency of QMS with the non-serious commitment by top management of the organizations. They assured that the positive impact of the QMS could be noticeable only where the top management takes an active position and assumes the role of leader in ensuring the functioning of the QMS.

As claimed by the director of LP "Euroasia MS", professor Solovev (2019), many managers believe that since the QMS is a certified enterprise, it should automatically solve all its tasks in the field of quality. However, this is fundamentally wrong, and there is limited understanding that getting a certificate is easier than confirming and continuously developing the system. Hence, the hope of individual managers that it is enough to develop all the documentation and the QMS will work on its own is a deep delusion and, figuratively speaking, leads such managers to the disease "ISO-phrenia".

The ISO certificate is not a panacea and not a miracle cure for all enterprise management problems, but just the first step and the beginning of a thorny path to business excellence, the tip of the iceberg, a business card of the organization's commitment to quality management. According to experts of the International Guild of Quality Professionals, today 80-90% of Kazakhstani enterprises have QMS that does not give the expected results in terms of achieving its goals in quality of processes and management systems.

According to professor of the All-Russian Research Institute of Certification Versan (2008), the reasons for the formal implementation of the QMS are that it:

- is perceived as a one-time action, another companionship that does not require constant efforts to ensure its functioning;
- is not accompanied by the involvement of the first managers of the enterprise in this activity.

As a result, the majority of employees of the enterprise could not competently divide the traditional activities of personnel into ordinary, ones because they could not

adequately understand that the activities of the QMS should be the norm of their daily work on managing the quality of products, processes and the organization itself. At the same time, the responsibility of the first manager for managing the enterprise based on quality should not be delegated to deputies as getting rid of “extra” work (Psomas et al., 2015). However, in practice, all responsibility for the functioning and improvement of the QMS of the enterprise lies with the head of the quality service, without appropriate authority and status. Moreover, some top managers ignore the proposals for quality service to adjust individual elements of their processes, referring to the robust employment on the instructions of the boss. They, like the executive manager, to get rid of "unnecessary" problems, delegate their responsibility for quality management to their deputies that are not involved in this process and cannot bear responsibility, show indifference, and withdraw from the embedded enterprise management system. This is supported by the representative of Russia in ISO I. Chaika. He claimed that the quality management representative should be a dual manager: a functional one with staffing authority and a system manager with cross-functional authority as an enterprise QMS coordinator (Chaika, 2007). In practice, the head of the quality service is appointed to the position of a quality management representative, without the authority of a system manager. Therefore, the company's managers perceive him as a functional manager and do not allow him into their fields of activity (Chaika, 2007). As a result of such a managerial paradox, the QMS is implemented formally. At the same time, the head of the company, after receiving the coveted ISO certificate, expects changes from the QMS in the form of acquiring competitive advantages in the market, increasing production efficiency, employee loyalty, and consumer loyalty. However, most of the certified organizations worked as they did 15-20 years ago, and continue to work, based on authoritarian management. There are no fundamental changes in their organizational culture. A workable QMS can be carefully “nurtured” only by the enterprise's top management, if it is transformed into leadership through the development and use of the principles of the process approach and the involvement of all top managers in the QMS of the enterprise (Mahfuz, 2022). In addition, the staff should see the personal commitment and active participation of senior management in the management, analysis, evaluation, and improvement of the QMS of the enterprise.

Collectively, these studies outline the critical role of top management in the effective operation of the quality management system in enterprises. Although the majority of studies explain the inefficiency of QMS with the action of top management, some reasons account for the motivation of employees. The findings of this study are partially consistent with the findings of previous studies on this issue.

3. METHODOLOGY

This paper used a qualitative research approach to address the research aim. Qualitative methods offer an effective way of uncovering implicit issues of the subject. It was also considered that qualitative measures would usefully supplement and extend the understanding of the problem. The research is explanatory in nature. Explanatory research assists in advancing our understanding of a given issue, exploring how or why a certain phenomenon is happening, and forecasting future occurrences.

In the study, the authors reviewed and analyzed several articles and studies to reveal the internal reasons for the inefficiency of QMS of domestic enterprises. Firstly, we reviewed the works of Kazakhstan's researchers who studied the quality management systems of local companies. The shortage of studies in this field forced the authors to analyze the works of Russian researchers. The primary reason for using Russian studies was that the two countries are former Soviet Union states and currently, they are part of one economic union, namely the Eurasian Economic Community. This means that the regulation of enterprises is similar in both countries and in most cases, they share similar corporate governance.

After collecting relevant studies, the authors carried out comparison technics to analyze the reasons for the low performance of the QMS in most certified companies over the past 15-20 years, based on materials from domestic and Russian publications.

4. FINDINGS AND DISCUSSION

After the analysis of the previous researchers' work, several internal factors were identified that negatively affect the effectiveness of the company's QMS.

Firstly, most of the heads of enterprises do not want to refrain from engaging in the development of the essence and ideology of quality management and incompetently interpret the requirements of ISO at an amateurish level (Adler, 2009). Therefore, it can be argued that many of them do not delve into the content of the requirements of the ISO standards, have not mastered it as their business management tool, and have not passed it through their "soul", because consider it the competence of the specialists of the quality department. Many deputy directors could not have a conscious need and desire to work according to ISO rules. Not having sufficient knowledge, skills, and competencies to improve their processes, they are not involved in this activity during the project development period. At the same time, some top managers are confident in their intellectual superiority, do not accept proposals for improvements "from below" and suppress the spirit and aspiration of performers for positive changes. Consequently, they discredit the system of quality management, which has received worldwide recognition and gravitate towards the repressive style of authoritarian management.

The second reason can be explained by the non-compliance of many managers with the requirements of ISO. For instance, the quality department rejected a batch of finished products at the exit. However, on the call of the director, the defective products were nevertheless delivered to the consumer. Hence, the principles of the QMS are declared by many directors in words and on paper; they live by "double standards" and are fond of showing off. They do not like the principles of the QMS, and observing them they are afraid of losing power. They have not accepted the new business management philosophy and have not mastered the signs of a true leader as well as have not popularized the ideology of the QMS. Thus, management unconsciously slows down positive changes. Consequently, they are psychologically unprepared to manage an enterprise according to ISO rules, and according to the American Society for Quality, their number in different countries today ranges from 60 to 80% (Raskina, 2011).

Moreover, many leaders of the organizations have not efficiently accepted Deming's idea, encoded in the formula "98/2", according to which the quality problems depend on

the management system and its creators by 98%, and the performer (worker, engineer, teacher, etc.) by 2% (Fidelman et al., 2015). The QMS of the enterprise is formed by the top management as a management tool. Therefore, they are obliged to become leaders and abandon the tradition of searching for those responsible for producing defective products and their punishment. The atmosphere of fear is not a method of solving problems, it leads to their concealment, generates the presentation of distorted information to the first manager, and leads to the appearance of repeated defects. In addition, the system of punishment of a subordinate generates the psychology of a "temporary worker" in people concerning the enterprise. In Japan, the mutual respect between the leader and subordinates has been instilled for thousands of years; they cooperate and do not conflict with each other (Kazarin, 2021). Therefore, it can be claimed that the implemented QMS cannot give the expected result until the first head of the enterprise becomes its main ideologist, does not get infected with the virus of "quality" and does not transmit this "infection" to the entire team as its carrier and informal leader. To expand the system of transparent motivation of personnel based on their free, creative and selfless work, it is necessary to provide an atmosphere in the team: trust and cooperation between people, work without fear and punishment of the guilty, recognition of merits and respect for human dignity, i.e., move from controlling and manipulating people to understanding the inner world. Here it is appropriate to cite a conclusion similar to ours, by foreign authors that claimed in the absence of internal motivation of the staff for active work, ISO 9001 can become just a new dress of the king (Poksinska et al., 2007).

Furthermore, the excessive isolation of the traditional management system on top management, the constant expectation of a team from above (everything is decided by the director), complicates the deployment of quality goals at all structural levels of the organization, contradicts the principle of a process approach to management, the need to delegate the powers of the first head to the owners of processes, for example, resource allocation (Ogvozdin, 2009). The centralization of resource management means that the process approach is not applied in this organization. Hence, it can be assumed that such enterprises' established organizational culture and management style are incompatible with the principles of the QMS. Ideally, before implementing the QMS, the first manager should master and implement its principles into the culture of the organization.

It is also worth noting that in many organizations, loyalty to the consumer of products is declared in words and on paper, but in practice, it is not fulfilled. Feedback from consumers in terms of identifying and solving their problems is insufficient.

Non-systematic management of the enterprise processes generates an emergency mode of operation, confusion, and waste of time for employees to carry out urgent orders from the boss. The ratio between systemic and non-systemic activities is 20:80. As a result, the certified QMS of the enterprise – "a small island of order" does not survive and sinks into the "ocean of managerial chaos and darkness".

Moreover, in most ISO 9001-certified organizations, quality departments are removed from quality management. Their functionality is reduced mainly to simple quality control based on management and documentation of audit, certification, and QMS analysis processes by management. In addition, the top management believes that the QMS department is a cost center and its task is only to obtain an ISO certificate of conformity,

that is, in the head of management, it is seasonal work during the period of annual reports and inspection audits.

Many companies tend to conduct formal internal audits of the company's QMS, due to the:

- low management culture and fear of words: defect, nonconforming products, deviations, etc., which are hidden and not analyzed by management. However, they have been all the time, in all areas of activity at the level of 20-30%;
- negative attitude of many managers to inconsistencies and the implementation of corrective and preventive action plans and a lack of understanding that they are development mechanisms;
- fear of auditors offending colleagues and identifying problems;
- the tendency of managers to conceal problems from the authorities;
- orientation of individual auditors only on the requirements of ISO, while it is necessary to simultaneously control the requirements of the GOST of the Industry Ministry for the quality of products/services.

It is widely believed that incompetent identification of the QMS of the enterprise with the systematization of its office work and the inclination of managers to develop excessive documentation. However, this is only one of the 28 sub-clauses of the ISO 9001:2015 requirements, i.e., 3.5% by volume. Therefore, the real QMS is not the systematization of office work, but the creation of a new order of business relationships between personnel as part of the formation of a modern corporate culture.

Also, many managers have simplified perceptions of the QMS audit procedure as a means of controlling and punishing those responsible for work defects. As a result, defects, inconsistencies, consumer claims, and deviations are hidden at all levels of management – which leads to the appearance of repeated defects and generates postscript, formalism, and alienation of managers from solving quality problems. However, the purpose of the QMS audit is not to search for inconsistencies and culprits, not control and verification, but assistance (coaching) in a joint analysis of the quality of the processes and management systems of the enterprise based on reliable information to identify problems and causes of system failure and their elimination.

Another key reason is that the system of key performance indicators (KPI) for the effectiveness of business processes for evaluating the activities of top managers has not been developed in many local enterprises. The development and use of KPIs expose the shortcomings of not only the deputies but also the top management, which nullifies the responsibility to achieve quality goals. This is a sign of a lack of motivation and formal QMS in the enterprise (Asaubaeva,2021).

Thus, the reasons why, in most cases, QMS do not work as prescribed by ISO 9001, and why most employees of enterprises perceive them as a burden become more understandable.

The effectiveness of the QMS implementation in many certified enterprises of the country depends on external and internal environmental factors, including those hampered by the formal approach and irresponsibility of their first leaders to the issues of its creation, support, operation, and improvement. The solution to the problem lies in the awareness of their top management, the fact that the path to mastering the QMS is

possible but extremely difficult, thorny, and managed through ISO 9000 series standards, self-assessment, and a portfolio of projects to improve it (Tsinovkina, 2020).

5. CONCLUSIONS

In current conditions, high product quality is one of the main success factors for local enterprises, ensuring their competitiveness and economic efficiency. Improvement of the quality management system aims to increase the possibility of increasing the satisfaction of customers and other interested parties. World experience shows that competitive advantages are achieved not only by reducing costs and prices but primarily due to higher quality properties and characteristics of products and services that can more fully satisfy the needs of consumers. Therefore, each country is striving to improve the performance of its organizations, trying to meet today's realities through the mechanisms of compliance with quality standards, and Kazakhstan is not an exception. Nevertheless, Kazakhstani entrepreneurs faced a number of internal problems in implementing QWS in the local firms such as insufficient competence of employees in these matters and lack of experience in the development of QMS documents as well as lack of experience in implementing and improving the QMS. Moreover, the directors of Kazakhstani enterprises lack the level of emotional intelligence and internal culture of quality. It is impossible to correct mistakes without criticism. However, it makes no sense to look for the culprits in criticism because 2% of the causes of defects depend on them. At the same time, it is rational to identify and eliminate the causes of systemic defects, which are 98% on the conscience of a vicious management system. It is not advisable to criticize the identity of the person because this is a futile undertaking, and instead, recommend improving individual elements of the processes, approaches, culture, and management system.

Together these results provide important insights for top management to manage the quality management systems of the enterprises efficiently. Also, the findings help to understand the key internal reasons for the inefficient application of quality management systems in domestic organizations. A limitation of this study is that the number of studies and research reviewed was relatively small. This was explained by the shortage of literature that studies the inefficiency of QMS in the Kazakhstan case. Therefore, further research should be done to investigate the impact of the involvement of personnel and management on the effectiveness of QMS in domestic firms.

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AUTHOR BIOGRAPHIES

***Zhassulan T. Kushebayev** – PhD candidate, Narxoz University, Almaty, Kazakhstan. Email: kushebayev@gmail.com, ORCID ID: https://orcid.org/0000-0002-5243-2222

Gusman K. Moldashev – Doctor of Agricultural Sciences, professor, Kazakhstan Engineering and Technology University, Almaty, Kazakhstan. Email: moldashevg@mail.ru, ORCID ID: https://orcid.org/0000-0003-2651-6809

Karlygash S. Daurenbekova - Master of Economics, senior lecturer, program leader, Almaty Management University, Almaty, Kazakhstan. Email: k.daurenbekova@almau.edu.kz, ORCID ID: https://orcid.org/0000-0003-0841-5334

Aruzhan K. Jussibaliyeva – Candidate of Economic Science, Associate professor, senior researcher (project manager), LLP Scientific and Production Enterprise Innovator, Astana, Kazakhstan. Email: d_aruzhan2011@mail.ru, ORCID ID: https://orcid.org/0000-0002-4841-4742

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Imputed Insurance in the Republic of Kazakhstan: Problems, Solutions and Development Prospects

Natalia Kaderova[1] | **Manshuk Dosmanbetova**[1*] | **Sofia Leshchinskaya**[2]

[1] Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan

[2] JSC IC NOMAD Insurance, Almaty, Kazakhstan

Corresponding author:
Manshuk Dosmanbetova - PhD, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan.
Email: dms-kz@mail.ru

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Abstract

The global insurance market, including the market of Kazakhstan, is in constant development and change due to instability in geopolitics, global and national economy. The most important effective tool in a market economy in the process of risk management is insurance. In any country, insurance is a guarantee of the development of its economic level, and financial and national well-being. It ensures the stable development of financial and entrepreneurial activities. In Kazakhstan, the production and non-production spheres are subject to an increased threat of the impact of natural disasters and technological disasters, which indicates a significant potential role of insurance, both at the micro and macroeconomic level. It is worth noting that, despite the growth, the insurance market is more developed, Kazakhstan lags behind developed countries. Kazakhstan needs to increase the percentage of the contribution of insurance assets to the GDP structure. The main priority in the field of insurance today for Kazakhstan is to achieve self-regulation of the insurance system, which implies minimal state participation in the insurance process. In this regard, new subspecies of insurance in the class of voluntary insurance are being introduced and developed in the country. Kazakhstan's market is dynamically developing, but little is covered and researched. This article discusses the main problems hindering the development of the insurance market and, in particular, the development of imputed insurance in Kazakhstan, provides a number of recommendations to eliminate these problems and proposals for further development of the insurance market.

Keywords: Imputed Insurance, Compulsory Insurance, Insurance Market, Insurance Business, Insurance Premiums And Payments, Business

SCSTI: 06.73.65
JEL Code: B4, D60, I3, R1

1. INTRODUCTION

In the modern world, the insurance sector is one of the most critical sectors of the economy, which ensures the stable development of financial and entrepreneurial activities. Insurance helps the state not only to develop the economic level of the country but also to preserve the achieved financial and national well-being. In a market economy, insurance has become the most crucial effective tool in the risk management process. Kazakhstan is characterized by increased vulnerability of the production and non-production spheres to the impact of natural disasters and technological disasters. Consequently, the potential role of insurance on a micro and macro-economic scale is huge.

Kazakhstan's market is dynamically developing, but little is covered and researched. Today, the sphere of entrepreneurship and business is expanding in Kazakhstan, which increases commercial, financial, economic and other risks that have become a daily reality for thousands of businessmen. Based on these realities, Kazakhstan strives to maximize the use and expansion of insurance opportunities and introduction into the life of every citizen of the country, developing the insurance culture of the population of Kazakhstan. Today, the main priority in the insurance sector for Kazakhstan is to achieve self-regulation of the insurance system, which implies minimal state participation in the insurance process. In this regard, new subspecies of insurance in the class of voluntary insurance are being introduced and developed in the country. To date, there is the emergence and development of a new for the post-Soviet space - imputed insurance, which will minimize the participation of the state, increase self-regulation of insurance in the Republic of Kazakhstan and provide a more informed approach to the insurance of citizens of the country. The introduction of imputed insurance in Kazakhstan will allow the parties to the insurance contract to provide flexible insurance terms that meet the interests of the client, improve insurance products and define a clear list of risks.

Imputed insurance has already been successfully introduced and is widespread in European countries such as France, Germany, and Austria. In Kazakhstan, imputed insurance is currently mandatory for such fields of activity as customs brokers, lawyers, bailiffs, and legal consultants. The insurance field in the Republic of Kazakhstan is a little-studied area. The topic of compulsory insurance in the Republic of Kazakhstan is sufficiently covered and researched, unlike imputed insurance, which was introduced only in 2018 and has not been studied practically to date. When studying scientific papers on insurance, the greatest attention was paid to the works of domestic and Russian specialists in connection with the similarity of the insurance system. Among the domestic authors who pay great attention to insurance in their works, it is necessary to single out such scientists as G.A. Kochkina, K.K. Zhuirikov. The following authors made a great contribution from foreign and Russian authors: K.A. Naiko, Zh.V. Puzanova, M.A. Trifonova, A.P. Arkhipov, A.E. Dvoretskaya, S.B. Bogoyavlensky, G.D. Alekseevich, P.S. Sergeevna, S.Yu. Yanova, Zh.V. Pisarenko, N.P. Kuznetsova.

The scientific works of the previously mentioned authors served as fundamental points of support during the writing of the work, as well as guides for understanding and scientific analysis of the theoretical foundations and practical aspects of the insurance sector in the economy. At the same time, it is necessary to note the presence and low

knowledge of imputed insurance in the Republic of Kazakhstan. This situation develops since imputed insurance was introduced not so long ago and is now at the stage of studying and adapting to the conditions of the economy of Kazakhstan. Therefore, the study of imputed insurance is of great relevance in the insurance sector today.

The purpose of the study is to analyze the development of the compulsory and imputed insurance market in the Republic of Kazakhstan, search for problem areas and develop recommendations for the further introduction of new types of imputed insurance, taking into account foreign experience. The elements of the scientific novelty of the study consist in revealing the essence of imputed insurance within the framework of the experience of the Republic of Kazakhstan and identifying its advantages compared with compulsory insurance. The results of research work in the future can be applied in practice by insurance companies of the Republic of Kazakhstan for their further development and strategic decision-making.

In the modern world, the insurance sector is one of the most critical sectors of the economy, which ensures the stable development of financial and entrepreneurial activities. Insurance helps the state not only to develop the economic level of the country but also to preserve the achieved financial and national well-being. The most important effective tool in a market economy in risk management is insurance. In any country, insurance is a guarantee of the development of its economic level, and financial and national well-being. It ensures the stable development of financial and entrepreneurial activities.

Kazakhstan is characterized by the increased vulnerability of production and non-production spheres to the impact of natural and technological disasters. Consequently, the potential role of insurance on a micro and macro-economic scale is huge. In Kazakhstan, the production and non-production spheres are subject to an increased threat of the impact of natural disasters and technological disasters, which indicates a significant potential role of insurance, both at the micro and macroeconomic level. Kazakhstan's market is dynamically developing, but little is covered and researched. Today, the sphere of entrepreneurship and business is expanding in Kazakhstan, which increases commercial, financial, economic and other risks that have become a daily reality for thousands of businessmen. Based on these realities, Kazakhstan strives to maximize the use and expansion of insurance opportunities and introduction into the life of every citizen of the country, developing the insurance culture of the population of Kazakhstan. Today, the main priority in the insurance sector for Kazakhstan is to achieve self-regulation of the insurance system, which implies minimal state participation in the insurance process. In this regard, new subspecies of insurance in the class of voluntary insurance are being introduced and developed in the country.

To date, there is the emergence and development of a new for the post-Soviet space - imputed insurance, which will minimize the participation of the state, increase self-regulation of insurance in the Republic of Kazakhstan and provide a more informed approach to the insurance of citizens of the country. The introduction of imputed insurance in Kazakhstan will allow the parties to the insurance contract to provide flexible insurance conditions that meet the interests of the client, and improve insurance.

2. LITERATURE REVIEW

Insurance is classified into two categories: objects of insurance and forms of insurance. Classification by forms of insurance divides this concept into two: mandatory and voluntary. Compulsory insurance is introduced at the state level to guarantee the protection of specific categories of citizens from socially significant risks. That is, the initiator is the state and is regulated by the legislation of the Republic of Kazakhstan. This type of insurance can cover highly severe risks to ensure their distribution to the maximum possible number of economic entities (Orlanyuk-Malitskaya, 2020).

According to the Law of the Republic of Kazakhstan, "On Insurance Activity", imputed insurance is also allocated, which is not considered a separate class of insurance. It is a type of compulsory insurance in which the requirement for compulsory insurance, types and minimum conditions of insurance (including the object of insurance, insurance risks and minimum amounts of insurance) are established by legislative acts of the Republic of Kazakhstan. Other conditions and insurance procedures are determined by the agreement of the parties. Imputed insurance is carried out within one or several insurance classes specified in paragraph 3 of Article 6 of this Law (Paragraph Information System, 2022).

Orlanyuk-Malitskaya & Yanova (2020) note the peculiarity of imputed insurance in the form of the flexibility of the terms of the insurance contract. This suggests that insurance coverage, risk pricing and some other terms of the insurance contract remain the subject of agreement between the insurer and the policyholder.

Arkhipov (2021) defines imputed insurance as insurance mandatory for the policyholder under the law or the conditions of his admission to the activity but not mandatory for the insurer and not considered mandatory in the statistical reporting of insurers. Imputed insurance is the least developed and studied. Some authors call it mandatory-contractual or voluntary-compulsory. In the explanatory dictionary, the word "impute" implies obliging to do something. The concept of "Imputed" can be defined as put into an obligation, made mandatory for fulfillment (Kuznetsova, 1998). Based on this, imputed insurance can be understood as a combination of compulsory and voluntary insurance conditions simultaneously. This insurance may have the following characteristics. For the policyholder to start activities in certain areas of activity defined by the legislation, he needs to obtain a certain admission. A number of conditions are defined in the insurance contract between the policyholder and the insurer. It is typical for areas of activity that have a high level of risk or high social significance. From this, it can be concluded that the terms of the insurance contract will be defined in the contract in an accessible form, but they will have certain restrictions. In accordance with the legislation, the contract must necessarily contain the following elements: the object of insurance, the list of risks assumed by the insurance company and the amount of the insured and the term of the contract. Thus, imputed insurance is mandatory for the policyholder, but it is drawn up in a voluntary form and the conditions are determined between the policyholder and the insurer individually.

Dvoreckaja (2016), under imputed insurance, implies compulsory liability insurance of owners of hazardous facilities, insurance of state property, the liability of tenants, and carriers. She believes that the development of imputed insurance indicates a positive

trend in the insurance sector. It is reflected in a rapid reaction to changing business needs, the growth of insurance culture and the literacy of citizens by insurance companies.

They explore common hypotheses related to the rejection of politics and credit activity by studying two options jointly and considering the multidimensional nature of the decision-making process. Findings suggest households tend to surrender their cash value policies when longer-term financial needs arise. Temporary needs are more likely addressed with loans, which keep the policy in force, and consistent with rational household decision-making (Cole & Fier, 2021).

Jędrzychowska (2022) offers new life insurance (a separate policy or as an extension option) that would help the household to return to regular work after the death of one of the household members.

To date, imputed insurance in the Republic of Kazakhstan is mandatory for customs brokers, lawyers, private bailiffs, and legal consultants. For example, the latter are insured if they incorrectly issued or even lost the client's documents. In other words, imputed insurance protects consumers and customers from the professional mistakes of representatives of those industries where the state has introduced this type of insurance. According to Oleg Khanin, Chairman of the Board of JSC Insurance Company Kommesk-Omir, imputed insurance, on the one hand, removes the financial burden from the state and increases the responsibility of business entities by regulating civil law relations. On the other hand, it protects the population in case of emergencies by paying compensation to victims (Kursiv Media, 2021).

In conclusion of the review, all researchers in this field note that imputed insurance has been quite widely developed abroad. Kazakhstan is at an initial stage, although it has certain advantages compared to compulsory insurance. This study is devoted to studying the practice of imputed insurance in Kazakhstan, identifying problems hindering this development and developing recommendations for their solution, considering foreign experience. In addition, this study hypothesized whether the lockdown of 2020 and significant events of 2022, such as the January strikes, Russia's special military operation on the territory of Ukraine and the subsequent sanctions, affected the activities of insurance companies in Kazakhstan.

3. METHODOLOGY

The methodological basis in the study includes dialectical theoretical and empirical methods. They include abstract-logical, system-structural, and economic-mathematical approaches to study. In particular, the methods of bibliographic research, situation research, statistical and economic-mathematical methods, comparative analysis, and the method of induction were used. The presentation consists of the initial definition of the basic concepts and the subsequent disclosure of the basics of the organization and functioning of compulsory and imputed insurance in Kazakhstan. It allows understanding of the patterns and current trends in the development of insurance relations.

The country's insurance market was analysed over the past five years, during which a stable growth of assets and profits of the insurance sector was revealed, while it is possible to note a more rapid growth of the life insurance industry in comparison with the general insurance industry.

The demand for insurance services and the size of the insurance premium per capita in Kazakhstan were analyzed at a low level. However, the indicators are growing slowly every year. The analysis of the volume of insurance premiums in the market over the past five years has shown the dynamics of growth. However, the dynamics of insurance payments is not stable. The volume of insurance premiums and payments for compulsory and imputed insurance in the whole market of the Republic of Kazakhstan was analyzed in dynamics.

The foreign practice of imputed insurance was analyzed. After reviewing the Republic of Kazakhstan insurance market, a regression analysis was carried out. It revealed a relationship between the performance indicator and factors that presumably affect the total amount of incoming premiums for compulsory, including imputed insurance. Consequently, they have the greatest impact on the growth of the insurance market in the Republic of Kazakhstan, which in turn increases the percentage of the contribution of the country's insurance market assets.

The analysis was carried out for the period from 2004 to 2021. For the analysis, several factors were assumed that can significantly affect the receipt of premiums: the number of insurance companies operating in Kazakhstan, the size of the MCI, and the number of citizens over 18 years old. The amount of the MCI affects insurance premiums since the calculation of compulsory insurance of civil liability of the car owner (OGPO) begins with 1.9 MCI. In addition, for the following mandatory types of insurance, such as environmental insurance and insurance of hazardous objects, the amount of the insurance premium is calculated in the MCI. For environmental insurance, the indicator is 65,000 MCI, and for insurance of hazardous facilities – from 75,000 MCI to 300,000 MCI. Accordingly, with the growth of the MCI, premiums for compulsory insurance also grow.

For a more in-depth study of imputed insurance, the authors analyzed the practice of using some of its types over the past three years in JSC IC NOMAD Insurance. An analysis of the financial situation of the company was made. The volume of incoming insurance premiums for compulsory and imputed insurance, as well as for their individual types, was analyzed, and the reasons that influenced the dynamics of these indicators were identified. The provisions and conclusions are illustrated by statistical data presented in diagrams with links to scientific literature and regulatory legal acts.

4. FINDINGS AND DISCUSSION

To date, the Government of the Republic of Kazakhstan is striving to minimize mandatory types of insurance in favor of imputed insurance. Compulsory insurance is regulated by law and obliges citizens of the country to ensure a particular liability or property. In imputed insurance, legislative regulation and state participation, as a result, are minimized. Minimizing state participation in the insurance sector will lead to increased competition between insurance companies and increase awareness and awareness of citizens in the insurance sector.

Imputed insurance is also beneficial from the point of view of risks. Unlike mandatory types of imputed insurance, insurers independently set tariffs and have the right to refuse to conclude an insurance contract. On an imputed basis, organizers of mass events and owners of crowded places can ensure professional responsibility; doctors and medical

workers, generally can ensure professional responsibility. Imputed insurance is also possible in intermediary activities in various industries – covering the liability of insurance and travel agents, real estate agencies, etc. This also includes professional liability insurance for services, entertainment and catering. The state is interested in increasing the financial responsibility of entrepreneurs who, in the event of major risks, such as fire or collapse of facilities, could independently cover the losses of victims.

The global insurance market, including Kazakhstan's market, is constantly changing due to instability in geopolitics, global and national economy. These changes, first of all, force insurers and all market participants to change. In Kazakhstan, modern legislation is unstable and subject to periodic amendments, changes and additions. As it was revealed earlier, the state is currently striving to minimize its participation in the insurance sector, which will certainly cause several amendments to the legislation.

The amendments will be related to the development of imputed insurance, which is new for Kazakhstan, but already well-known and widely used in developed countries. A characteristic feature of developed countries is the rejection of compulsory insurance in favor of compulsory contractual insurance for the protection of citizens. Mandatory - contractual is similar to imputed insurance. At the same time, the main motive for such a transition by the governments of developed countries is to strengthen the insurance protection of citizens and not the development of insurance organizations.

It can be concluded that insurance in world practice is an important sector of national economies. The funds accumulated through insurance serve as a source of large investments. The insurance business has reached the highest level of development in the USA, Germany, and France. In many ways, the introduction of the European Union helps the development of the insurance sector in European countries. In contrast, developed countries manage to fit the general rules into the framework of the peculiarities of the national economy and the mentality of the country. A distinctive feature and one of the confirming factors of the high level of development of the insurance culture of the EU countries is the widely developed imputed insurance. It indicates a high insurance culture of the country's population and the literacy of citizens. In 2022, 27 insurance (reinsurance) companies are operating in the Kazakhstan insurance market, 9 of which specialize in life insurance, and 18 carry out general insurance. Thus, 67% of insurance market companies are companies operating in general insurance, 33% of companies specialize in life insurance.

In the last five years, there has been a stable dynamic of asset growth in the insurance sector of the country. Despite the difficult period during the pandemic, Kazakhstan's insurance sector continues to show stable growth. Thus, there was observed an increase of 23% in 2021. The total amount of assets at the beginning of 2022 exceeded 1.8 trillion tenge or 2.35% of the country's GDP. It is essential to note the more rapid growth of the life insurance industry compared to the general insurance industry. Retained earnings at the beginning of 2022 amounted to 114.3 billion tenge.

The demand of the population for insurance services in Kazakhstan is relatively low, but the indicators are growing at a slow pace every year. The insurance premium per capita at the beginning of 2022 amounted to 36,574 tenge, the ratio of insurance premiums to GDP was 0.9%. The ROA index was 7.1%, and the ROE was 16.8% (The Agency of the Republic of Kazakhstan for Regulation and Development of Financial

Market, 2022). In terms of insurance premiums in the insurance market as a whole, growth dynamics has been observed over the past five years, but in terms of insurance payments, the dynamics could be more stable. The growth of insurance premiums in the country must be caused by a significant increase in demand for products that are not only compulsory but also voluntary insurance. The demand for life insurance has increased almost two times. This dynamic is caused by an increase in demand for urgent life insurance, as well as the introduction of new voluntary savings products (Ranking.kz, 2021).

Compulsory insurance, including imputed insurance, has seen an increase in the number of insurance premiums over the past three years, although less rapid than voluntary insurance (see Figure 1).

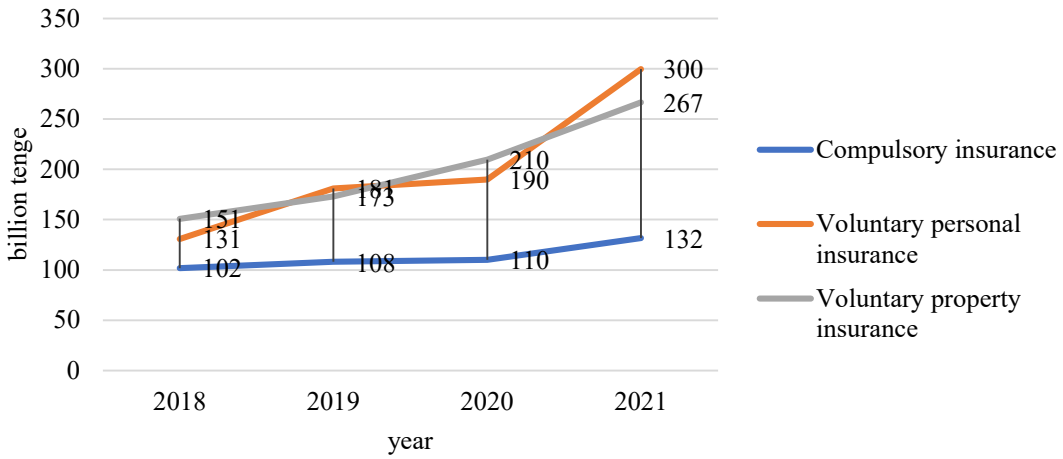

FIGURE 1. Dynamics of insurance premiums in the market of the Republic of Kazakhstan for 2019-2021, billion tenge.

Note: compiled by the authors according to the ARRR

Thus, in 2021, the increase in compulsory insurance amounted to 19.82%, while the share of compulsory insurance premiums for 2021was 18.87%.

Among insurance payments, there can be noticed an increase until 2019 and a decrease in 2020 and 2021. This decrease is due to the pandemic and, as a result, a drop in insurance companies' payments for a number of insurance classes, such as insurance for tourists, cargo and production. The decrease is also due to the lockdown, the ban on movement in the country, and the non-use of personal transport of citizens. However, based on the above data, Kazakhstan's insurance market has resisted and adjusted to the new conditions. During the pandemic, insurance companies began a rapidly transitioning to digitalization, which became their priority for the following years. The insurance sector has adjusted to modern realities. Managers of insurance companies are creating new products in the medical field, such as insurance against coronavirus, critical illness, and telemedicine. Innovations can also be introduced into insurance programs against interruption in production, cyber risks, and financial losses. Rapid digitalization will be the key to further development of the insurance sector.

Compulsory insurance payments in 2021 increased by 9.6 billion tenge or 27.7%

compared to the previous year, while their share in the total volume of payments in the market amounted to 34.94% (see Figure 2).

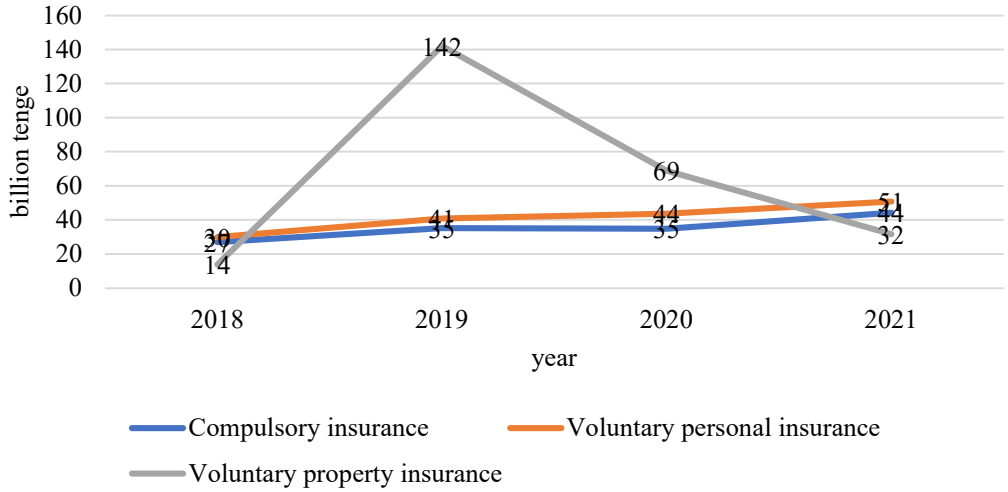

FIGURE 2. Dynamics of insurance payments on the market of the Republic of Kazakhstan for 2019-2021, billion tenge.

Note: compiled by the authors according to the ARRR

In general, in 2021, there is a drop in insurance payments by 16.01% compared to the previous year, with an amount of 126.8 billion tenge against 147.1 billion tenge in 2020. A decrease in insurance payments leads to an increase in the profitability of the sector. Also, the reduction of insurance payments leads to the strengthening of the financial stability of companies and their solvency.

It should be noted that although among the indicators of the total assets of the insurance sector, premiums, and equity, there is an increase in the penetration level, as mentioned earlier, but it is quite low. The population has a distrust of insurance. According to data from rating agencies, in 2021 the share of gross insurance premium in Kazakhstan's GDP was about 0.2%, while in Europe with developed economies, this figure is up to 13% (Centras kommesk, 2022). The reasons for this are people's distrust of insurance, since insurance contracts are concluded for a long-term period. Also, the reason is the low level of income of the population and uncertainty about financial stability in the near future, and high inflation. An important reason is also the financial illiteracy of the majority of the country's population and the poor awareness of the insurance programs offered.

Kazakhstan needs to increase the percentage of the contribution of insurance assets to the GDP structure. In developed countries, this level exceeds 5%. For example, in South Korea, this figure is 11%, in Germany – 6%. In Kazakhstan, by the end of 2021, this indicator was only 2.3%, although the dynamics of its growth was observed. So in 2020, this indicator was 2.1%, and in 2019 – 1.9% (FinReview, 2022). To increase the level of this indicator, domestic insurance companies need to expand the list of services offered. So imputed insurance can become one of the tools to increase the interest and involvement of the population in insurance. Kazakhstan's accession to the World Trade

Organization in 2015 also contributed to the development of the insurance market, which opened up access to foreign investments for domestic insurance companies.

At the conclusion of the review of the Republic of Kazakhstan insurance market, a regression analysis was carried out, which revealed a relationship between the performance indicator and factors that presumably affect the total amount of incoming premiums for mandatory, including imputed insurance. Consequently, they have the greatest impact on the growth of the insurance market in the Republic of Kazakhstan, which in turn increases the percentage of the contribution of the country's insurance market assets.

The analysis was carried out for the period from 2004 to 2021. For the analysis, several factors were assumed that can significantly affect the receipt of premiums: the number of insurance companies operating in Kazakhstan, the size of the MCI, the number of citizens over 18 years old.

The amount of the MCI affects insurance premiums since the calculation of compulsory insurance of civil liability of the car owner (OGPO) begins with 1.9 MCI. Also, for the following mandatory types of insurance, such as environmental insurance and insurance of hazardous objects, the amount of the insurance premium is calculated in the MCI. For environmental insurance, the indicator is 65,000 MCI, for insurance of hazardous facilities – from 75,000 MCI to 300,000 MCI. Accordingly, with the growth of the MCI, premiums for compulsory insurance also grow.

It was assumed that there was a connection between the population of the country over the age of 18 and the volume of incoming premiums. Since citizens who have reached this age will undoubtedly face insurance at work, in the presence of movable and immovable property and when travelling abroad.

Thus, a multiple regression was constructed to determine the influence of each factor individually, and their cumulative effect on the indicator.

Based on the calculated pair correlation coefficients, it can be concluded that the indicator taken as X1 - citizens of Kazakhstan over 18 years of age has an average direct correlation.

Indicator X2 – the number of insurance companies has an inverse average correlation. That is, the more insurance companies there are in the insurance market of Kazakhstan, the smaller the amount of premiums collected.

The indicator X3 – the size of the MCI has a high direct correlation with the resulting factor. The multicollinearity between factors X1 and X3 was eliminated. There was conducted regression analysis between the resulting indicator and variables X2 and X3. It was revealed that the most significant indicator that has the greatest impact on the amount of premiums collected in the compulsory insurance market of Kazakhstan is the size of the MCI.

For a more in-depth study of imputed insurance, the authors analyzed the practice of using some of its types over the past three years in JSC IC NOMAD Insurance (AO SK NOMAD Insurance, 2022). JSC "NOMAD Insurance Insurance Company" has been operating in the insurance market of Kazakhstan for the 18th year and is one of the leaders in this industry. The company ranks third in the general insurance market. At the end of 2021, the International Rating agency S&P Global Ratings upgraded the financial and credit ratings of the insurance company to "BB" on an international scale.

From 2019 to 2021, the growth rate of the balance sheet currency was observed in NOMAD Insurance IC JSC, which indicates the positive dynamics of the company's development. Thus, in 2021, compared to 2020, the balance sheet currency increased by 11.7% and amounted to 36,695.6 million tenge. In addition, the company has high profitability indicators in the insurance market, which indicates its efficient operation. NOMAD Insurance IC JSC provides 13 types of imputed insurance services in two classes: professional liability insurance and civil liability insurance. The class "Professional liability insurance" includes the following types of services: insurance of civil liability (GPO) of appraisers; insurance of GPO of grain receiving enterprises to holders of grain receipts; insurance of GPO of private bailiffs; insurance of professional liability of lawyers; insurance of professional liability of legal consultants; insurance of GPO of owners of temporary storage warehouses (customs warehouses); insurance of GPOs of medical institutions. The class "Civil liability insurance" includes several types of services, but only the following services are fully introduced and offered by the company: insurance of civil liability of the copyright holder of the intellectual property object (trademark); insurance of civil liability for environmental damage (AO SK NOMAD Insurance, 2022).

The dynamics of incoming premiums of the company, both for compulsory insurance and imputed, declined in 2020. The reason for this was the pandemic, lockdown, and as a consequence, the lack of any demand for some types of insurance - for example, insurance for tour operators, travel agents and tourists (see Figure 3). In 2021, the situation levelled off.

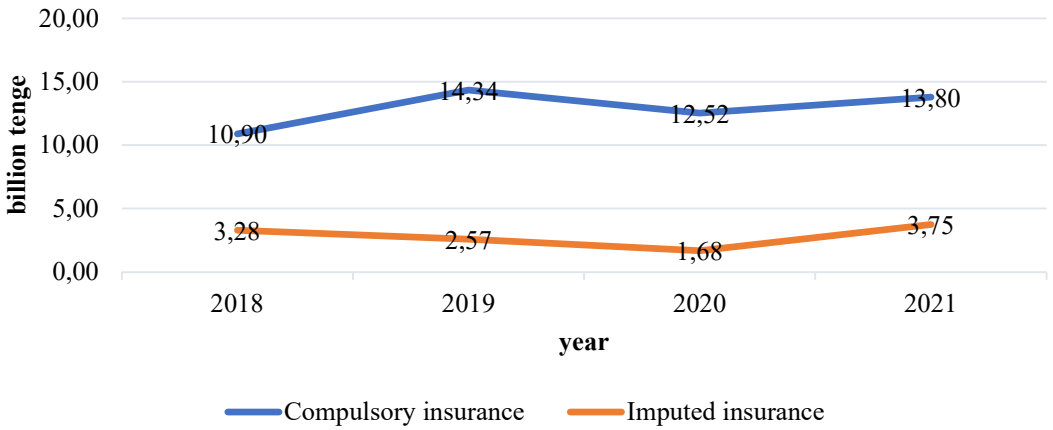

FIGURE 3. Dynamics of premiums for mandatory and imputed insurance classes of JSC IC NOMAD Insurance, million tenge.

Note: compiled by the authors according to JSC IC NOMAD Insurance

Thus, compulsory insurance saw an increase of 1,281.5 million tenge in 2021 compared to the previous year, as citizens of Kazakhstan resumed trips abroad. According to imputed insurance, the growth occurred by 2,070 million tenge in 2021. From 2018 to 2020, the dynamics of a decrease in premiums for imputed insurance was noticed, as the underwriting department of the company decided to reduce the number of contracts and narrow the portfolio of GPO insurance. In 2021, the company again signed

several major contracts on civil liability, which caused an increase in premiums in 2021 for imputed insurance. This dynamics of the development of these insurance classes is positive and indicates the development and increase in demand for insurance services in this company.

There is a stable dynamic of growth in premiums for professional liability insurance. In 2021, an increase of 10.79% was observed (see Figure 4).

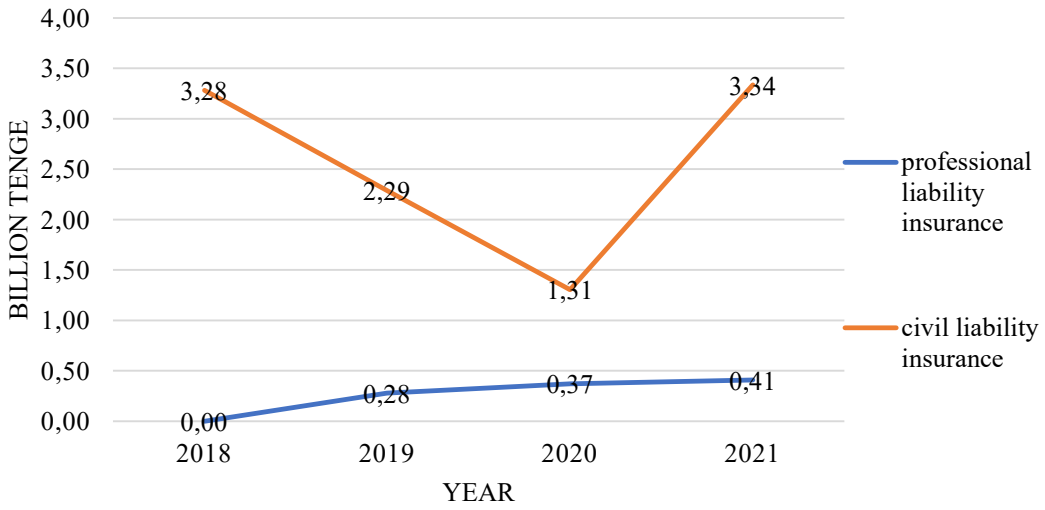

FIGURE 4. Dynamics of premiums for imputed insurance of JSC NOMAD Insurance Company, million tenge.

Note: compiled by the authors according to JSC IC NOMAD Insurance

The dynamics of decline from 2018 to 2019 have been observed for the insurance of GPO products. This is due to the internal policy of the company and, therefore, the decline in this portfolio.

In 2021, there is an increase of 2,030.1 million tenge, which is explained by the conclusion of large new contracts by the company for this portfolio. In 2022, the underwriting department again plans to refrain from concluding new contracts for this portfolio.

In general, there is an increase in demand for imputed insurance services. The company has a general dynamic of a decrease in insurance payments in 2021 compared to the previous year by 433 million tenge, which is a positive factor for it (see Figure 5).

However, payments for imputed insurance are growing, and a decrease has been noticed only for the mandatory insurance class. This may mean that the company needs to take a more careful approach to developing conditions when concluding contracts for imputed insurance, which is a new product.

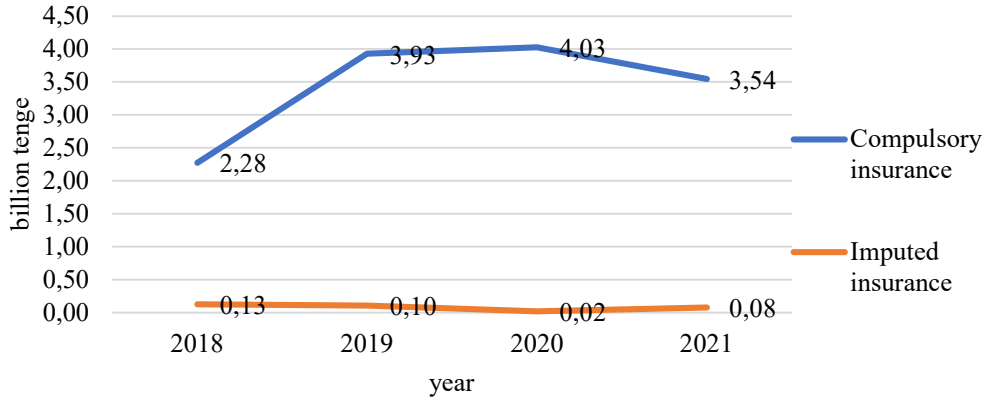

FIGURE 5. Dynamics of payments for mandatory and imputed insurance classes of JSC IC NOMAD Insurance, million tenge.

Note: compiled by the authors according to JSC IC NOMAD Insurance

In 2021, the company noticed a decrease in the amount of payments for professional liability insurance by 8.3 million tenge and an increase in civil liability insurance by 61.9 million tenge (see Figure 6).

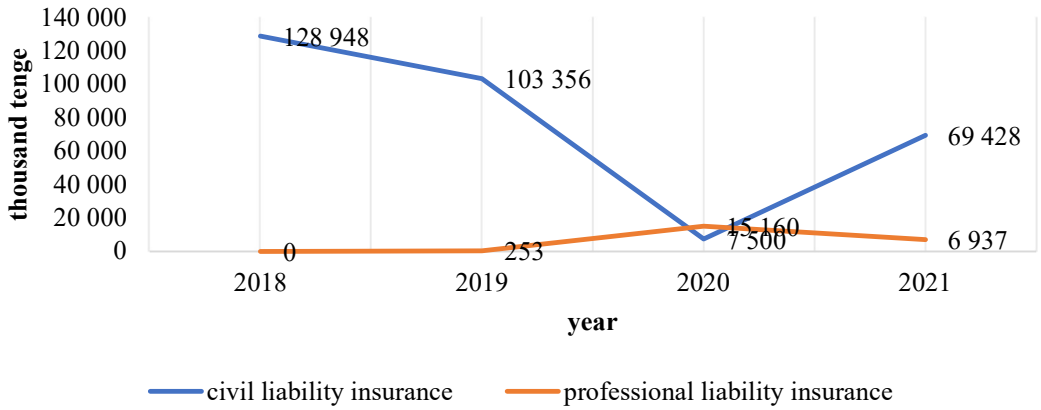

FIGURE 6. Dynamics of payments on imputed insurance of JSC IC NOMAD Insurance, million tenge.

Note: compiled by the authors according to JSC IC NOMAD Insurance

In general, there is an increase of 53.7 million tenge in this class of insurance, which is not exactly a positive development dynamic for the company. On the other hand, these dynamics may indicate an increase in demand for imputed insurance and an increase in the volume of insurance contracts of the company.

It should be noted that in 2020 and 2021, due to the implementation of a proper underwriting policy that helps to eliminate negative risks for the company, there is a dynamic of a decrease in the payout ratio for the company, which indicates the effective operation of NOMAD Insurance IC JSC. So, in 2021, compared to 2020, the payout ratio decreased by 6.87 percentage points and amounted to 15.31%.

In general, NOMAD Insurance is a stable, dynamically developing company that supports and invests in economically important sectors of the state. It is important to note the company's innovative approach in the following forms. The promotion of imputed insurance, development and implementation of various types of services for this class of insurance. The creation of an innovative program that develops the insurance sector in Kazakhstan and helps the population to get additional income.

In Kazakhstan's legislation, as noted above, the concept of "imputed insurance" was first mentioned in 2018. However, at that time, there were no clear procedures for the registration of contracts for this type of insurance. In 2021, a package of amendments was introduced regarding cases when any state bodies decide to introduce new types of imputed insurance in a particular field of activity. Formalizing some parameters will help to exclude errors that could later cause additional disputes (Kursiv Media, 2021).

Any new types of imputed insurance stimulating the insurance market and introduce new flows of insurance premiums, stimulate the work of the investment portfolio. Today, a big problem in Kazakhstan is the insecurity of medical workers. According to statistics, about 600-800 cases are initiated annually for improper performance of professional duties in relation to medical workers under Articles 317-323 of the Criminal Code of the Republic of Kazakhstan. Criminal cases are often initiated against specialists of surgeons, obstetricians-gynecologists, traumatologists and anesthesiologists, who constantly have the risk of a fatal outcome of the patient in their work process. According to the Medical and Pharmaceutical Control Committee of the Ministry of Health data for the period from 2018 to 2020, 12% of more than 12 thousand appeals were recognized as justified by individuals. Thus, the number of initiated cases is increasing every year, while the percentage of appeals recognized as justified is not growing. Over 8.8 million tenge was paid in favor of patients during this period. Facts of unfair criminal prosecution for medical errors often occur (Paragraph Information System, 2021).

Often, these criminal cases end with the payment of significant amounts of material compensation by a medical institution or by a medical professional himself. At the current salary level of medical workers of state medical institutions, they are not able to financially compensate a large amount of damage. In order to solve this issue, the process of introducing GPO insurance for medical workers is underway. It is planned that all state medical institutions will have to put money into the budget for liability insurance of medical workers: all doctors, surgeons, nurses, etc. medical personnel. Within the framework of this type of imputed insurance, a pre-trial settlement of the conflict is expected with the involvement of independent experts and compensation for harm to the life and health of a citizen in the absence of direct intent on the part of a medical professional. Regulation of the insurance system for this type of imputed insurance is planned to be delegated to the Medical and Pharmaceutical Control Committee (Pharmaceutical Review of Kazakhstan, 2021).

In the international practice of many EU and US countries, unique imputed insurance products have been introduced, which could be used in the practice of Kazakhstan. Thus, in international practice, imputed insurance of civil liability for damage from oil pollution is used, which provides for financial guarantees in case of civil liability for damage from the pollution of tanker ships carrying over 2000 tons of oil or petroleum products as cargo (Bank of Russia, 2021).

For many years, the scientific community has been discussing the introduction of compulsory civil liability insurance for gun owners in the United States (Bank of Russia, 2021). The introduction of such insurance helps to ensure compensation for damage caused to third parties and reduce violence with the use of weapons. This is because the high insurance rates set by the insurance company for potentially unreliable customers will allow such persons to restrict access to weapons. It should be noted that the insurance market of America ranks second in terms of penetration into the country's economy, which indicates a high level of education of citizens in the field of insurance. In Japan, there are such types of imputed insurance as insurance by the owner of the warehouse of the property taken for storage against fire, insurance of liability of insurance brokers as an alternative to a cash deposit in a particular bank account. Imputed liability insurance of cyclists for damage caused to third parties is unique in international practice. In Russia, at the end of 2021, there were 61 types of imputed insurance.

By the end of 2021, the most relevant topic in the financial market is digitalization. So it was this innovation in the field of insurance that allowed citizens of the Republic of Kazakhstan to receive insurance services during the hard lockdown of 2020. Insurers' investments in digitalization not only helped mitigate the negative impact of the pandemic on the growth rate of the industry, but also opened access to new opportunities (Forbes Kazakhstan, 2021). Thus, the insurance market of Kazakhstan has turned the pandemic into a digital breakthrough in the financial market of Kazakhstan. Digitalization has great advantages in reducing the cost of attracting new customers, a better and faster risk assessment process, and the possibility of instant direct contact with consumers of the service. It is expected that in 2022 the owners of vehicles will be able to settle the insured event under the compulsory insurance contract entirely online.

The year 2022 began with global changes in Kazakhstan and the world. These changes have particularly affected the financial sector of the country and affected the insurance sector. The impact of significant events in 2022, such as the January strikes and Russia's special military operation on the territory of Ukraine, was analyzed. Protests and riots in Kazakhstan in January 2022 were classified in the insurance sector as an act of terrorism. The analysis revealed a slight impact of the January events on the state of insurance companies in Kazakhstan. Thus, these riots did not have a negative impact on the state of NOMAD Insurance JSC, since 95% of the insured property was insured under the classic insurance package, which did not include cases of acts of terrorism and strikes. The number of companies that were paid insurance compensation included: shopping center "Promenade"; JSC "TechnodomOperator", which was paid more than 400 million tenge - this company concluded an agreement on an expanded package of insurance coverage, including an act of terrorism.

If the January events did not significantly affect the stability of insurance companies, then the global situation between Ukraine and Russia has a strong impact on the insurance market of Kazakhstan, and on the implementation of prudential standards by insurance companies in the country. This is due to a decrease in the international rating of companies (Western and Russian), where Kazakh insurance companies reinsure risks. Western companies refused to accept risks after the sanctions were imposed and to make payments on already accepted risks for insurance companies associated with the sanctions lists of America and the European Union. According to the order of the National

Bank of the Republic of Kazakhstan, insurance companies are delayed in solving the current situation's problem until September 2022.

5. CONCLUSIONS

An analysis of the country's insurance sector over the past 3 years was carried out, during which a trend in the development of the insurance sector in Kazakhstan was noticed. There was a rather low demand for insurance services among the population of Kazakhstan, but there is a tendency for the indicator to grow. The reasons for the low demand for insurance services are people's distrust of insurance since insurance contracts are concluded over a long-term period. Also, the reason is the low level of income of the population and uncertainty about financial stability soon, high inflation. An important reason is the financial illiteracy of most of the country's population and people's poor awareness of the insurance programs offered. It was revealed that Kazakhstan needs to increase the percentage of the contribution of insurance assets to the GDP structure. Domestic insurance companies need to expand the list of services offered to increase this level. Imputed insurance was proposed as one of the tools to increase the interest and involvement of the population in insurance.

During the study, it was revealed that the current issue for Kazakhstan is the transition from compulsory insurance to imputed insurance. In general, practice shows that such a transition positively effects the insurance sector of Kazakhstan since imputed insurance is regulated by the market and satisfies all sides of this process. To date, the insurance culture in the country is not yet so developed that the population voluntarily resorted to insurance. That is why voluntary insurance today is a small segment of insurance. The state prefers the development of imputed insurance because citizens of Kazakhstan face with an area regulated by imputed insurance. They are obliged to resort to insurance but have the right to do so on convenient and favorable terms for them.

Resorting to the expansion and introduction of the list of new types of imputed insurance, the state seeks to minimize its participation in the insurance sector, and this naturally leads to a number of amendments to the legislation. Thus, in the course of the study, the following suggestions were derived:

- Regarding the development of the entire insurance market, it is necessary to continue the process of digitalization of insurance services, which will reduce the cost of attracting new customers, assess risks more quickly and efficiently, instantly make direct contact with consumers of services, which in the future will help mitigate the negative impact of a possible pandemic and generally open access to new opportunities.

- The National Bank of the Republic of Kazakhstan needs to analyze in more detail the political risks associated with the financial segment of the country with its structures, those related to sanctions that may be imposed on companies of other countries where Kazakhstani companies reinsure their risks. Although it should be noted that this is not a market factor since the rating of insurance companies in countries subject to sanctions is artificially lowered, and it is difficult to predict.

- As for the further development of imputed insurance in the Republic of Kazakhstan, it is necessary to develop and improve legislative acts with a clear list of procedures for the execution of contracts for new types of imputed insurance. Develop a clear procedure

for concluding an imputed insurance contract. Develop a standard contract with the listed minimum requirements for a particular type of imputed insurance;

- To introduce the following types of imputed insurance into the practice of the Kazakhstan insurance market: insurance of GPOs of medical workers, insurance of civil liability for damage from oil pollution, insurance of civil liability of gun owners, liability insurance of shopping and entertainment centers, liability insurance of organizers of mass events;

Implementing these proposals will contribute to the further development of the insurance market, including the development of imputed insurance in Kazakhstan. In turn, it will develop the country's insurance culture by expanding the list of services offered by the insurance campaigns of the Republic of Kazakhstan. As a result, these changes will increase the percentage of the introduction of insurance assets into the GDP structure.

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AUTHOR BIOGRAPHIES

Natalia Kaderova - Candidate of Economic Sciences, profeesor, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan. Email: nkaderova@mail.ru, ORCID ID: https://orcid.org/0000-0002-4475-2883

***Manshuk Dosmanbetova** - PhD, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan. Email: dms-kz@mail.ru, ORCID ID: https://orcid.org/0000-0003-0326-2850

Sofia Leshchinskaya – Specialist, Underwriting Department of NOMAD Insurance IC JSC, Almaty, Kazakhstan. Email: Sofka.com09@gmail.com, ORCID ID: https://orcid.org/0000-0002-9229-9710

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Investment in Education as a Factor of Economic Growth of the Country

Saltanat Baidybekova [1*] | Sandugash Sauranbay[2] | DinaraYermekbayeva[3]

[1] Zhetysu University named after I.Zhansugurov Taldykorgan, Kazakhstan

[2] Almaty Management University, Almaty, Kazakhstan

[3] Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan

Corresponding author:
Saltanat Baidybekova - candidate of economics, associate professor Zhetysu University named after I.Zhansugurov Taldykorgan, Kazakhstan.
Email: b-saltanat@mail.ru

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EJEBS

Abstract

Education is the main resource for the sustainable development of countries and regions and belongs to one of the main fields of activity, where the main resource is human capital. Relevance. The topic of the article is relevant since the development of the education system is the basis of the socio-economic development of states and a vital factor reflecting the economic and social well-being of the population of countries and regions. The purpose of the research topic is to reflect the importance and necessity of investing in investments in education as the main factor in the economic development of the country. To achieve this goal, the following tasks are set: justification of the need to invest in education; disclosure of the prospects for investing in education. Methods. During the research, various techniques and methods were used, the main of which are economic and statistical: deduction and induction, analysis and synthesis, statistical analysis. The empirical basis of the study was the data of the Eurasian Economic Union, the Department of Statistics of the Republic of Kazakhstan for 2017-2021, scientific publications of economists dealing with the problems of attracting investment in the development of human capital. Results. Based on the conducted research, the results of the study are considered, the main of which are changes in investment directions in education by attracting investments in both formal and additional vocational education, as well as development prospects

Keywords: Education, Investments, Human Capital, Innovative Technologies, Qualified Personnel, Level of Education, Labor Market, Gross Domestic Product

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1. INTRODUCTION

In the conditions of the market economy, various markets are being formed, such as the real estate market, the securities market, the human capital market, etc. The formation of a civilized and competitive human capital market is impossible without investments, which can be invested both at the expense of own and attracted funds, the use of which is directed to education

Education is one of the main institutional mechanisms for the production, accumulation and development of human capital, directly produces products and participates in the financial and economic activities of countries and regions. Investments are needed in order to improve the quality of education. It contributes to an increase in the social effect: reducing the number of unemployed people, reducing poverty, increasing literacy among the population, improving the level and quality of life of the population, increasing people's incomes, etc. (Altunina et al., 2019).

In the modern world, to improve the quality of life of the population, as well as to obtain material benefits in the future, there is a highly paid job, for which it is necessary to have a high-quality education.

Throughout life, a person goes through several stages of education: preschool, primary, secondary, secondary vocational, higher, and postgraduate education

To determine the effectiveness of investing in education, it is necessary to properly evaluate investments, which is a rather complicated procedure since this area of investment is specific and requires a long time. Nevertheless, an increase in the volume and effectiveness of investments in the future is reflected in increasing the competitiveness of enterprises, and the economic growth of countries and regions no matter how long the investment evaluation process is (Anisimova, 2021).

In modern conditions of innovative development, human capital plays an important role in ensuring the sustainable economic growth of countries. People with high-quality education, experience, professional skills and values, life attitudes, and purpose are valuable resources in ensuring economic growth. For the constant qualitative growth of human capital, investments are necessary as an investment in a person to develop their productive forces.

The basis of the study is to determine the essence of investment in education, as well as to determine the share of education spending that affects the economic growth of countries and regions.

Currently, there is a growing trend in demand for educational services, which indicates that the prestige and value of education, especially higher education, is increasing. However, despite this, there are some problems in the market of educational services, the main of which are: an insufficiently high level of efficiency of human capital, the lack of demand for specialists in certain areas in the labor market, the discrepancy between supply and demand, etc. (Yerimpasheva et al. 2021).

The main problem is that investments in education do not always give the expected economic effect, and therefore this problem is relevant.

When investing, it is necessary to consider the demand for a particular specialty, after receiving which a graduate can get a job and return the amounts of funds that were invested in them.

A highly qualified specialist with all the necessary qualities should receive a decent salary for his work, although in practice this is far from the case and this is the main problem. Based on the conducted research, it can be noted that in practice there is an underestimation of the cost of labor performed and an underestimation of human capital as one of the components of the national wealth of countries (Nikulina, 2021.).

To obtain deeper professional development, it is necessary that the employee invests his own funds as an investment to get a promotion, get a decent salary, etc., which in the future will give a positive economic effect.

Currently, many people want to get an education at the expense of investments as state grants, parents' tuition fees, but not everyone is ready to invest their own investments in order to gain additional professional competencies and knowledge, to find a higher-paying and prestigious job (Pishnyak et al., 2020)

2. LITERATURE REVIEW

The works of many foreign and domestic economic scientists are devoted to attracting investments in countries' economic development.

One of the founders of classical economics, the English economist D. Ricardo studied the problems of investment, capital and profit. Based on the results of the conducted research, the author highlighted the author's view on the concepts of capital, as well as free capital, the essence of which is identical to investments. In his research, D. Ricardo noted that the capitalist mode of production is the main one for creating wealth, and the author also developed a methodology for analyzing rent, profit and wages (Ricardo, 2001).

The English economist J. M. Keynes in his work "The general theory of employment, interest and money" on the basis of his research, noted that an increase in employment leads to an increase in national income and, as a consequence, consumption increases. According to the author, along with the income growth, people desire to increase the accumulation of funds and reduce spending. In his work, J.M. Keynes argued that the main function in determining the amount of employment is played by the total amount of investment (Keynes, 2002).

Kazakhstani authors Aubakirova G.M., Mazhitova S.K., Isatayeva F.M., Tomashinova A.E. in their work reflected the problems and main ways of improving investment policy in Kazakhstan. The authors revealed the relevance of the topic under study and noted that in order to ensure sustainable economic growth, it is necessary to develop and improve investment policy while paying special attention to industrial policy, the purpose of which is to develop the technical equipment of production and technological processes.

In the work, special attention was paid by the authors to the issues of increasing the investment attractiveness of Kazakhstan, which requires the implementation of a set of interrelated measures (Aubakirova et al., 2021).

Kazakh authors Nurmukhanova G.Zh., Nurtayeva D.K. in their research reveal the main systemic imperatives of the integration of education, science and business. In the

work, the authors noted that in order to form an effective, innovative economy, it is necessary to modernize education, during which new innovative structures should be created in the form of techno parks, business centers, innovation centers, expert communities, etc. The article analyzes such indicators as the share of education expenditures, the share of science expenditures, and the share of innovative products in the total gross output. Special attention is paid to the issues of attracting investments in education as the main factor of the country's economic development (Nurmukhanova et al., 2020).

Even though the problems of attracting investment in education are reflected in the works of many economic scientists, this issue is relevant and still unresolved. In particular, the authors of the article reflect the issues of attracting investment both in formal traditional education, but also additional professional education, which has been gaining popularity and is in demand in recent years (Atakhanov, 2018.).

3. METHODOLOGY

During the research, various methods and methods were used, which include the following: deduction and induction, analysis and synthesis, economic and statistical analysis, and grouping.

Many scientists have been engaged in the development of education and their investment. They considered the solution to this problem in various aspects. However, at the same time, methodological approaches to solving problems have yet to be sufficiently disclosed to date. In particular, the economic efficiency of investments in education for individual regions, and for various subjects of education, has not been sufficiently determined.

Preliminary work is being done to study the labor market, in which the correspondence of demand and supply of professional personnel from the educational organization should be studied (Kuandyk et al., 2022).

The level of education is one of the leading indicators reflecting the human capital development index, which reflects the level of human development at various levels: high, medium, and low. The human capital indicator reflects the problems that arise when accumulating and using human capital resource in countries.

In practice, various methods of calculating the level of human capital are used. However, the most effective method is determining individual benefits from education, which can be calculated by determining an average employee's salary for the most productive period of life. On average, this indicator is 20-25 years old. Based on the conducted research, it can be noted that the most productive period for a person's creative activity is from 35 to 45 years, although each case has its peculiarities and nuances (Ermakov et al., 2015).

To determine the effectiveness of investment in education, you can apply the method of a causal relationship between the amount of time spent on training and the result of the economic activity of a particular entity.

The main indicator is the return on investment, which is defined as the difference between the income received during the period of active work and the cost of training and the division of the resulting indicator by the cost of training.

It is necessary to apply the grouping method when determining the quality of human capital. This is when indicators are grouped according to various criteria, for example, education level, regional characteristics, industry characteristics, etc.

To improve the quality of education, each person can attract individual investors who will be interested in investing in a particular person and from whom there will be a return (Pitukhin et al., 2017).

4. FINDINGS AND DISCUSSION

One of the indicators characterizing the level of education is the expenditure on education, which occupies a certain share in the structure of the gross domestic product (GDP). Education expenditures as a percentage of GDP show how the authorities of various countries support the development of education and what place the education sector occupies in the overall structure of countries' expenditures.

Figure 1 shows the expenditure on education in individual countries as a percentage of GDP (Gross Domestic Product) for 2021.

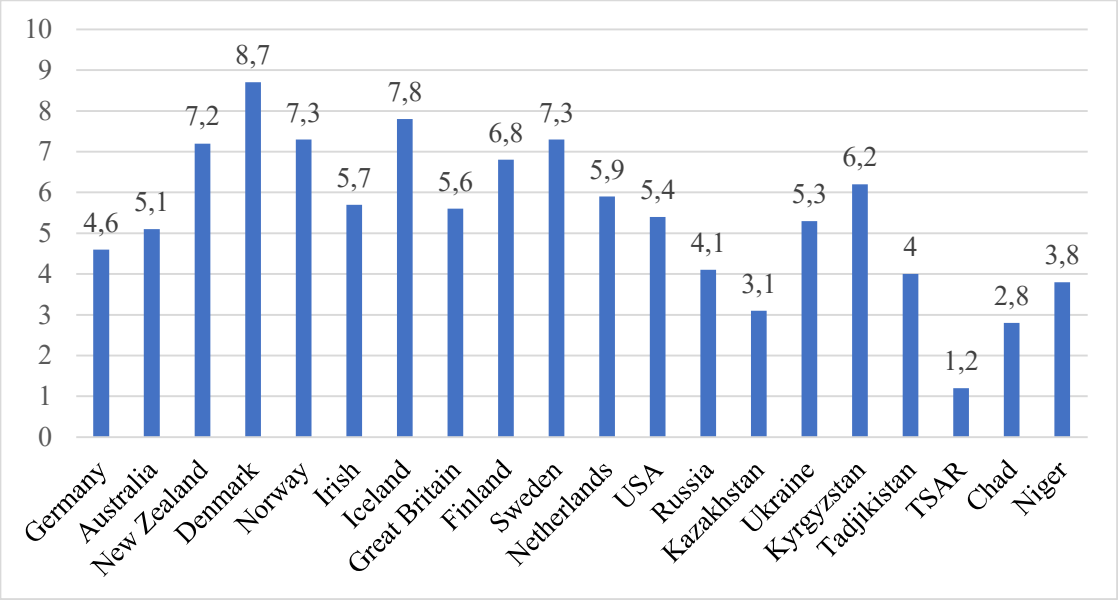

FIGURE 1. Spending on education in the countries of the world as a percentage of GDP in 2021

Note: Compiled by the authors based on references (Gumanitarnyi portal, 2019)

According to the data in Figure 1, we see that the top five countries in the ranking of education spending included such countries as:

1.Germany with an index of 0.946, the share of expenditures is 4.6% of total GDP.

2. Australia with an index of 0.923, the share of expenditures is 5.1% of the total GDP.

3. New Zealand – 0.923, the share of education costs is 7.2%.

4. Denmark – 0.92, the share of education costs is 8.7%.

5. Norway - 0.919, the share of education spending is 7.3% of the total GDP

The expenses for education in the CIS countries were as follows:

34. Russia – 0.832, the share of expenditures – 4.1%.

39. Kazakhstan -0,817, the share of expenditures -3.1%.

47. Ukraine -0.797, the share of expenditures – 5.3%.

The countries of the African continent are in the bottom positions in terms of education spending as:

186. Central African Republic - 0.353 points, the share of expenditures is 1.2%.

196.Chad – 0.288 points, the share of expenditures amounted to 2.8% of the total GDP.

198.Niger — 0.247 points, the share of expenditures amounted to 3.8% of the total GDP (Gumanitarnyi portal, 2019).

Many developed countries pay great attention to education, since the future belongs to young people, and in order for them to be competitive in the labor market, it is necessary to create all conditions for quality education, in particular, funds are allocated from the budget.

Domestic and foreign investments are attracted for the development of various sectors of the economy. The share of domestic and foreign investments fluctuates in the direction of increase and decrease, which is influenced by various objective and subjective factors.

Table 1 shows the structure of investments in fixed assets by various types of economic activity, including education in the Republic of Kazakhstan for 2017-2021.

TABLE 1. Structure of investments in fixed assets by type of economic activity in Kazakhstan (as a percentage of the total)

Indicates	**2017**	**2018**	**2019**	**2020**	**2021**	**Off 2021 from**			
						2017	**2018**	**2019**	**2020**
Investments in fixed assets	100	100	100	100	100	3223	2319	2023	420
including agriculture, forestry and fisheries	4,0	3,3	3,9	4,6	5,9	1,9	2,6	2,0	1,3
mining industry	33,8	44,1	54	32,2	28,3	-5,5	-15,8	-25,7	-3,9
electricity supply, gas	10,9	11,1	8,1	8,8	11,7	0,8	0,6	3,6	2,9
supply construction	1,1	1,0	1,0	1,0	1,2	0,1	0,2	0,2	0,2
wholesale and retail trade	2,4	2,0	1,9	1,6	1,9	-0,5	-0,1	-	0,3
transport and warehousing	14,4	13,0	9,7	10,7	10,7	-3,7	-2,3	1,0	-
education	2,9	1,8	1,7	2,4	2,2	-0,7	0,4	0,5	-0,2
Note: compiled by the authors based on references Eurasian Economic Commission (2021).									

According to the data analysis of Table 1, the share of investments invested in education compared to other sectors of the economy, for example, mining, electricity, and transport, is significantly less. In 2021, the share of investment in education was 2.9%

of the total investment structure for all types of economic activity. During subsequent periods it decreased and increased slightly. Compared to 2017, the share of investment in education in 2021 decreased by 0.7%, from 2018 and 2019 the increase was 0.4 and 0.5%, respectively; from 2020 the indicator decreased by 0.2% (Eurasian Economic Commission, 2021).

Education is one of the main sectors of the economy, reflecting development indicators. However, the share of investment from gross domestic product (GDP) in recent years in Kazakhstan has fluctuated between 0.3–0.5%, which is a low indicator.

In 2021, the amount of investment in education in Kazakhstan amounted to 293.6 billion tenge, while in 2020 the amount amounted to 301.6 billion tenge, i.e. compared to 2020, the indicator decreased by 2.7 percent.

If to analyze the share of investment by region, the largest share of investment in education in 2021 fell on the metropolis of Almaty, which amounted to 56.9 billion tenge, which is 19.4 percent of the investment volume of entities throughout Kazakhstan.

Also, a significant share of the investment fell on the Turkestan region, which in 2021 amounted to 36.8 billion tenge compared with 2020, and the indicator increased by 78.8%. Investments in education in Nur-Sultan in 2021 amounted to 35 billion tenge, compared to 2020, the indicator increased by 61.4%. The top three accounted for 43.9% of investments in the Republic of Kazakhstan.

The Turkestan region (36.8 billion tenge, plus 78.8% in value terms for the year) and the capital (35 billion tenge, plus 61.4%) were also in the top three. The top three regions accounted for 43.9% of the ROK.

The smallest amount of investment in education in 2021 fell on the Mangystau region, which amounted to 4.3 billion tenge, compared to 2020, the indicator decreased by 30.3%.

The most minor investment in the sector was observed in the Mangystau region: only 4.3 billion tenge, minus 30.3% for the year.

Both republican and local budgets allocated investments in education. Of the total investment in education, 59.5% of investments were provided by local budgets, which amounts to 174.6 billion tenge compared to 2020, which decreased by 18.7%.

At the expense of enterprises, the amount of investment in 2021 amounted to 53.4 billion tenge, compared with 2020, there was an increase of 9.7%., at the expense of the republican budget, the amount of investment amounted to 44.5 billion tenge. Investments were also attracted to education at the expense of non–bank borrowed funds - 10.6 billion tenge, bank loans - 10.5 billion tenge.

In the republican budget, the number of expenditures on education in 2021 amounted to 3.7 trillion tenge, compared with 2020, there was an increase of 17.2% (Bureau of National Statistics, 2022).

Many countries pay great attention to education. The future belongs to young people, and in order for them to be competitive in the labor market, it is necessary to create all conditions for high-quality education.

5. CONCLUSIONS

Based on the research, it can be said that the quality of human capital education affects

not only the level and scope of an individual's activity but also the level of sustainable economic development of countries and regions.

Education is one of the main sectors of the economy of countries since human capital is the central resource through which products are produced and high-quality services and work are provided. In the modern world, to improve the quality of life, and to obtain material benefits in the future, people need a well-paid job, for which it is necessary to have a high-quality education (Baktymbet et al., 2020).

Based on the conducted research, the following conclusions can be drawn:

- it is necessary to develop a mechanism for attracting investment in education as the main factor in the economic development of countries, in particular, the development of public and private partnerships between educational institutions and investors on mutually beneficial terms;
- attracting private companies for the inflow of investments, both in formal and informal continuing education, which in the future can receive educated and competitive specialists;
- bringing the share of investment in education and science to 5% of GDP, whereas in 2021 in Kazakhstan, it was 2.2%
- strengthening the position of online education as one of the necessary and attractive in the labor market, the main of which are mobile training, micro-training, and corporate education. For example, the largest educational companies such as EdTech, Pearson and Google, EdMarket and School of Education, etc. have now been created.
- investing in educational startups using artificial intelligence technologies;
- attracting investments for the development of additional professional education, which is so necessary for a rapidly changing environment, mainly it is on-the-job training through the use of modern technologies: coaching, mentoring, mentoring;
- modernization of educational programs with the involvement of both domestic and foreign partners who will promote further employment of graduates.

There is a relationship between the costs of education and the amount of income received by a particular person. However, it can be said that they can be attributed to investments. It is necessary to conduct a comprehensive analysis of expenses and income, which will take a long time. A unified methodology for calculating the economic efficiency of investment in education has not been fully developed, since there are various criteria and factors that need to be taken into account when making calculations.

Since this research topic is relevant and global for the sustainable development of the country's economy, the authors will continue to work in this direction.

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AUTHOR BIOGRAPHIES

***Saltanat.K.Baidybekova** - candidate of cconomics, associate professor, Zhetysu University named after I. Zhansugurov, Taldykorgan, Kazakhstan. Email: b-saltanat@mail.ru, ORCID ID: https://orcid.org/0000-0002-7974-1236

Sandugash B. Sauranbay - PhD, associate professor, Almaty Management University Almaty, Kazakhstan. Email: bss0609@mail.ru, ORCID ID: https://orcid.org/0000-0001-7567-6900

Dinara Yermekbayeva - PhD, associate professor, Kenzhegali Sagadiyev University of International Business, Almaty, Kazakhstan. Email: ermekbaevad@mail.ru, ORCID ID: https://orcid.org/0000-0001-8910-6239

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Regional Features of the Placement of Light Industry Enterprises in Kazakhstan

Nailya Nurlanova[1] | **Akedil Omarov**[1*]

[1] Institute of economics of the Committee of science MSHE RK, Almaty, Kazakhstan

Corresponding author:
Akedil Omarov - PhD candidate, Institute of economics Committee of science MSHE RK, Almaty, Kazakhstan.
Email: akedil1981@mail.ru

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Abstract

The purpose of the article is to identify the main factors of production placement, assess the concentration of light industry in the regions of Kazakhstan and develop proposals for the cluster organization of the industry. To achieve the goal, literary sources were studied, the main factors of production placement were identified, the level of concentration of light industry in the regions of Kazakhstan was assessed, the peculiarities of the placement of its enterprises were identified, proposals for the cluster organization of the industry were developed. The following methods were used: logical, generalizations, comparative analysis, economic-statistical, index, grouping, Krugman, Herfindal-Hishman methods. The hypothesis of the study was the assumption that the concentration of light industry in certain regions and the creation of regional clusters of the country will increase the level of competitiveness of the industry. The information base was provided by literary and Internet sources, scientific developments of domestic and foreign scientists on the studied problem: data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, data posted on the websites of the regions of Kazakhstan. As a result of the study, the factors of production placement were identified, the level of concentration of light industry branches in the regions of Kazakhstan was assessed, the peculiarities of the placement of Kazakhstani textile, leather, shoe and clothing industries were identified, the need to create regional clusters to increase the competitiveness of the industry was substantiated.

Keywords: Economy, Light Industry, Location, Concentration, Region, Cluster

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1. INTRODUCTION

Modern global challenges inevitably lead to a reduction in the volume of international trade, disruption of global technological chains, supplies of raw materials, goods, and services, and as a result, to a sharp increase in prices, including for essential goods.

President of Kazakhstan K.-Zh. Tokayev in his address to the participants of the World Economic Forum on May 24, 2022 stressed that in a difficult geopolitical situation, Kazakhstan must ensure the self-sufficiency of the national economy, reduce dependence on imports. Building a self-sufficient economy requires an increase in the share of the manufacturing industry in the structure of the national economy, first of all, essential goods. Meanwhile, in Kazakhstan in recent years, satisfaction of the needs of Kazakhstanis for many types of the light industry goods of domestic production has significantly decreased. Thus, the share of light industry in the total volume of the country's industry was less than 1%, despite the availability of raw materials and other resources. Therefore, there is an increase in the expansion of the Kazakh consumer market by manufacturers of foreign countries.

Today, the domestic light industry, designed to ensure the economic security of the country by meeting domestic demand, is urgently needed to solve many problems. Meanwhile, due attention is not paid to the regional aspects of the development of light industry, there are practically no studies of the territorial organization of light industry enterprises. In this industry that enough problems have accumulated in the modernization of the production of individual industries, in providing it with a raw material base, etc.

Increasing the availability of cheaper domestic light industry goods for the population and weakening import dependence implies solving the accumulated problems, and building new industrial enterprises and technological renewal of existing ones. This requires a study of the existing production potential of the industry, an assessment of its location and the level of concentration in the regions of Kazakhstan, which determines the relevance of the study.

The purpose of the article was to determine the main factors of production placement, to assess the level of concentration of light industry in the regions of Kazakhstan and to develop proposals for the cluster organization of the industry.

The hypothesis of the study was the assumption that the concentration of light industry in certain regions and the creation of regional clusters in the country will increase the level of competitiveness of the industry.

To achieve the goal and confirm the validity of the hypothesis put forward, a literary review of sources on the problems of placement and concentration of production in the spatial economy was made. The main factors of production placement were identified, the level of concentration of light industry was assessed and the features of the placement of industry enterprises in the regions of Kazakhstan were identified. Proposals for the cluster organization of the industry were developed.

The following methods were used: logical, generalizations, comparative analysis, economic-statistical, index, grouping, Krugman, Herfindal-Hishman methods.

The information base was provided by literary and Internet sources, scientific developments of domestic and foreign scientists on the studied problem: data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the

Republic of Kazakhstan, data posted on the websites of the regions of Kazakhstan.

As a result of the study, the main factors of production placement were identified, the level of concentration of light industry branches in the regions of Kazakhstan was assessed, the peculiarities of the placement of Kazakhstani textile, leather, shoe and clothing industries were revealed, taking into account the influence of not only the raw material factor and favorable geographical location, but also factors of "second nature", in particular, agglomeration effects from crowding and opportunities for economies of scale. It is concluded that it is necessary to create regional clusters based on light industry enterprises to increase the competitiveness of the industry.

2. LITERATURE REVIEW

Based on the study and generalization of literary sources on the problem of territorial distribution of production, it follows that each region of a certain country has its specialization in the production of specific types of products supplied to domestic and foreign markets (Aiginger, 2006). In other words, the specialization of regions in the production of certain products and the concentration of this production in the region determine their role in the territorial division of labor (Amiti, 1998). The location of production, its concentration and specialization are influenced by factors such as natural conditions, raw materials, labor and other production resources, the level of socio-economic development, geographical location, historical background and others.

In Kazakhstan, the issues of the efficiency of production concentration are of particular importance due to the large territory of the country for the placement of production and the large differentiation of regions by the level of socio-economic development. A significant issue for making the right decisions in the implementation of regional policy is the study of trends in the localization of productive forces in the country.

The issues of specialization and concentration of production in spatial economics were raised in such major scientific fields as the theory of the central place of Perroux and Henderson, which is based on the idea of the leading role of the sectoral structure of the economy in spatial development (Perroux, 1955; Henderson, 1974), neoclassical theory, a new theory of trade, new economic geography. In turn, the factors explaining the regional specialization of production are divided into two groups: primary (raw materials, labor, land and location, capital) and secondary (territorial remoteness, entrepreneurial ability, innovative activity, information, etc.) (Tgaistaru, 2003; Martincus, 2002). The neoclassical theory focuses on primary factors. Economic activity is concentrated in the regions in accordance with the available factors of production and technologies. The economy of a country or its region specializes in the production of products based on their comparative advantages (Ricardo) or the presence of factors of production (Heckscher-Olin).

The new economic geography evaluates the location of production based on the ratio of two factors, such as economies of scale, direct and inverse relationships, and trade costs, and the difference in prices for factors of production (Fujita, 1999). Interregional demand differences are considered endogenous factors (Amiti, 1998). In conditions of growing profitability and trading costs, firms of its production tend to concentrate near

large markets. A large market is one in which a large number of firms and employees work (Baldwin, 1994; Ottaviano and Puga, 1997). The new economic geography models the processes of localization of production on the basis of interregional labor mobility (Krugman, 1991) and the mobility of firms in demand for intermediate goods (Venables, 1996).

Absolute and relative concentrations are distinguished in the literature. The industrial sector is considered to be concentrated if several countries account for a significant share of the total volume of this production (Midelfark-Knarvik, Overman, Kedding et al., 2000). The industrial sector is relatively concentrated if one of the activities differs from those that are on average most common in the volume of industrial production in countries. The neoclassical theory usually considers relative concentration, new economic geography studies absolute, new trade theory considers both types (Haaland, Kind, Torstensson et al., 1999).

The study of the theory and foreign practice of the issue of territorial localization and organization of industry and its individual branches indicates that their improvement, taking into account the more rational use of production factors, will contribute to an increase in output and improve quality characteristics.

The territorial organization of the industry is influenced by two main groups of factors: socio-economic and natural-geographical. The main role belongs to such socio-economic factors as the availability of a production base, investment opportunities for the organization of new and technological modernization of existing ones, support for local authorities and others. The level of impact of various factors mainly depends on the technical and economic characteristics of light industries.

Rational territorial organization of light industry provides for a close interweaving of sectoral and regional aspects of development, increasing work efficiency by minimizing the total costs of production and transportation of products, as well as improving territorial concentration and specialization (Hall, 1967).

The territorial organization of light industry is based on such principles as the elimination of fundamental differences in the levels of economic and social development of individual regions and economic districts or zones; uniform distribution of production throughout the country in order to make the most effective use of economic and natural resources of all regions; systematic strengthening of the territorial division of labor on the basis of integrated development and rational specialization of economic districts; the approximation of industry to the sources of raw materials, fuel, energy and areas of consumption of finished products. Also, the territorial organization of light industry is formed under the influence of many factors, the most important of which are: natural conditions and raw materials, the settlement of the population and labor resources, the development of productive forces, transport, economic and geographical location, historical and geographical features of the development of the territory, the level of development of science and others.

According to the cumulative influence of factors on the placement of light industry, all its branches and productions can be grouped as follows:

- focused on their own raw material base (primary processing of cotton, production of nonwovens, leather);
- labor-oriented (textile, knitting industry, haberdashery);

- consumer-oriented (shoe, sewing, felting, leather and fur, shoe, etc.).

Light industry, as a link of the territorial-industrial complex, acts as a branch of specialization in it, within which there is a certain functional dependence between sub-sectors and industries.

A distinctive feature of our research conducted in this article is that the assessment of the level of concentration of production facilities on the territory of the country was carried out on the example of the most important manufacturing industries for Kazakhstan and its consumer market: textile, clothing, leather. The results of the study presented in the article also differ from existing studies in the world and domestic science in that they are made in a regional aspect and reflect the peculiarities of the location of light industry in Kazakhstan.

3. METHODOLOGY

The research methodology is based on general scientific, private, empirical methods, including logical, generalizations, comparative analysis, economic and statistical, index, grouping, Krugman, Herfindal-Hishman methods.

The information base was provided by literary and Internet sources, scientific developments of domestic and foreign scientists on the studied problem: data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, data posted on the websites of the regions of Kazakhstan.

To analyze the geographical concentration and regional specialization of the national economy, the index method was used as a methodological approach, and the localization, concentration and specialization indices of Herfindahl–Hirschman and Krugman served as evaluation tools.

In particular, to determine the level of specialization of economic areas, such indicators as the localization coefficient, the production coefficient per capita, the coefficient of interdistrict marketability (Animitsa et al., 2014) were used. At the same time, it should be noted that the coefficients of territorial specialization and concentration are mainly calculated on the basis of production indicators, such as the volume of shipped products, the structure of GDP or GRP, the structure of employment and the structure of exports. In foreign practice, the Herfindahl–Hirschman index (Herfindahl, 1950; Hirschman, 1964) is most often used as a tool for analyzing territorial concentration and specialization, along with the Krugman index (Krugman, 1991).

The Krugman Index (KDI) is a calculation of the sum of squares of the shares of territorial concentration and specialization and is widely used in the United States and European countries. The maximum value of the index is equal to one, which indicates a large concentration of the industry in the region or the region specializes in this industry. Consequently, a high specialization coefficient indicates the homogeneity of the economy of the studied territory. The lower the indicators of territorial specialization or concentration, the more diverse the structure of the economy of the analyzed territory, that is, more opportunities for the development of the territory in the future.

The Herfindahl–Hirschmann Index (HHI) is calculated according to the formula (1):

$$HHI = \sum_{i=1}^{n} x_i^2, \text{ where} \quad (1)$$

x_i^2 - the share of the industry in the total volume of manufacturing industry in the region.

To analyze the placement of certain types of economic activity in the regions, the traditional localization indicator is used according to the formula (2):

$$CL=(V\_bc/V\_br \times 100):(V\_ic/V\_ir \times 100) \quad (2)$$

Where:
CL – coefficient of localization;
Vbc - the volume of production of light industry in the region;
Vbr - the volume of production of the country's light industry;
Vic - the volume of manufacturing industry in the region;
Vir - the volume of the country's manufacturing industry.

Using the localization coefficient, it is possible to determine how often the concentration of a particular type of economic activity exceeds the average for the republic. This means that the localization coefficient characterizes the region relative to the specifics of industrial production. Calculations of the indicator can be made not only by the number of people employed in the economic sector but also by the output volume and the cost of fixed assets. This coefficient has a good applied purpose and is widely used in the developing and implementing of regional economic policy. Also, the localization coefficient allows the identification of potential regional clusters.

4. FINDINGS AND DISCUSSION

Placement factors are diverse and unstable; they can change depending on the development of transport infrastructure, demographic problems, purchasing power, etc. It is possible to distinguish the main ones – raw materials, consumer, labor resources, which should include the necessary number of qualified workers. At the same time, various factors may have a predominant influence on the placement of enterprises in different branches of light industry.

Based on official regional statistical data for 2015-2019, we analyzed the quantitative placement of light industry enterprises in the regions of Kazakhstan. Shown in table 1.

TABLE 1. Placement of light industry enterprises by regions of Kazakhstan

Industries/sub-sectors	Regions	The number of enterprises in 2015	Produced products in 2015, million tenge	The number of enterprises in 2019	Produced products in 2019, million tenge
	Akmolinskaya	9	3384	8	3 825,4
	Turkestan	19	4884	24	12 621
	Zhambylskaya	-	221,7	-	140,3
	Almaty	15	2135,8\	12	5770,7
Мап	Aktobe	6	152	10	736

	Atyrau	8	572	6	2414
	East Kazakhstan	12	961,4	11	1409,5
	Kyzylorda	-	230,0	16	783,0
	Karaganda	8	511,8	6	561,5
	Pavlodar	12	2870	8	5813
	West Kazakhstan	6	311	6	127
	Kostanay	9	1201	8	2075
	North Kazakhstan	5	205,6	4	306,9
	Mangystau	2	67	-	44
	city of Almaty	29	1080	25	1950
	Shymkent	14	9926,5	12	20878,3
	Nursultan	9	778,3	9	783
Clothing production	Akmolinskaya	5	356,8	4	358,5
	Turkestan	6	250	5	355
	Zhambylskaya		505,3		1161,7
	Almaty	16	5709,2	21	9807,1
	Aktobe	5	415	7	1408
	Atyrau	7	572	9	1625
	East Kazakhstan	24	3048,4	28	2906,7
	Kyzylorda	-	138	-	451
	Karaganda	30	4373	39	4291,8
	Pavlodar	25	1438	19	1128
	West Kazakhstan	9	632	11	731
	Kostanay	11	1809	10	1673
	North Kazakhstan	5	1580,2	6	967,6
	Mangystau	4	1214	8	2280,0
	city of Almaty	63	7063	73	6766
	Shymkent	20	6266,9	21	4557,1
	Nursultan	16	1995,9	18	3497,1
Manufacture of leather and related products	Akmolinskaya	2	54,3	2	796,3
	Turkestan	3	66	1	21
	Zhambylskaya	1	318,7	1	2 220,8
	Almaty	2	526,5	4	941,1
	Aktobe	-	-	1	2
	Atyrau		-	-	62
	East Kazakhstan	4	606,1	3	463,8
	Kyzylorda	-	-	-	-
	Karaganda	3	596,8	6	595,1
	Pavlodar	-	1	1	53
	West Kazakhstan	-		1	28
	Kostanay	1	124	-	10
	North Kazakhstan	1	-	1	-
	Mangystau	1	558	1	667
	city of Almaty	4	2943	8	4752
	Shymkent	3	304,2	6	521,1
	Nursultan	-	36,7	2	178,3

Note: Compiled by authors

Thus, according to statistical data, in 2015, 166 enterprises operated in the production of textile products. In 2019, their number decreased to 159 units. Textile manufacturing enterprises are available in almost all regions of the country. In 2015, textile industry

enterprises produced products worth 29,492.1 million tenge, and in 2019, despite the reduction in their number, this amount increased by two times and amounted to 60,238.6 million tenge. The increase mainly occurred in Shymkent, Turkestan, Almaty, Kostanay, Atyrau, and Pavlodar regions. A significant increase in output was associated with a three-year contract from 2016-2019, for the supply of military uniforms.

The largest placement of enterprises producing textile products in 2019 falls in Almaty and the Turkestan region. In Almaty, there was a reduction in the number of enterprises from 29 in 2015 to 25 in 2019, and in the Turkestan region increased from 19 in 2015 to 24 in 2019. In the Turkestan region, the increase was due to the resumption of such large enterprises as Melange and Utex, closed in 2016 due to bankruptcy. Shymkent and Almaty region are next in terms of the number of enterprises, with 12 enterprises each. It should be noted that Shymkent produced textile products for 20,878.3 million tenge, which is the highest indicator in the republic as a whole.

In the production of clothing, the situation is slightly different. In 2015, about 246 enterprises operated, the total output amounted to 37,366.7 million tenge. The number of enterprises in 2019 increased to 279, and the total output reached 43,964.6 million tenge. The largest concentration of enterprises in the regions of the country is observed in the cities of Almaty (73 enterprises in 2019), Karaganda region (39 enterprises in 2019), East Kazakhstan Region (28 enterprises in 2019) and Almaty region (21 enterprises in 2019).

The smallest number of enterprises is recorded in the production of leather and related products. The largest number of enterprises in 2019 reached 8 in Almaty, followed by Shymkent and Karaganda regions with 6 enterprises each. For the rest of the regions, the number of enterprises ranges from 4 to 1. The leaders in terms of products produced in 2019 are Almaty (4752 million tenge) and Taraz (2,220.8 million tenge).

Using statistical data for 2015, 2019, to determine the localization coefficient of light industries, we made calculations for 14 regions and three megacities of the Republic of Kazakhstan. Shown in table 2.

TABLE 2. Localization coefficients of the textile industry of light industry in the regions of the Republic of Kazakhstan for 2015, 2019

No.	Regions	Textile industry products produced in 2015, million tenge	The manufacturing industry of the region in 2015	Coefficient of localization in 2015	Textile industry products produced in 2019, million tenge	The manufacturing industry of the region in 2019	Coefficient of localization in 2019
1	Akmolinskaya	3384	231 415	2,96	3825,4	641 931	1,14
2	Turkestan	4884	172 028	5,75	12621	244 586	9,91
3	Zhambylskaya	221,7	196 723	0,23	140,30	352 056	0,08
4	Almaty	2135,8	462 705	0,94	5770,7	883 047	1,26
5	Aktobe	152	264 391	0,12	736	605 300	0,23
6	Atyrau	572	335 679	0,35	2414	525 597	0,88
7	East Kazakhstan Region	961,4	826 835	0,24	1409,5	1 560 350	0,17
8	Kyzylorda	230	90 556	0,51	783	145 740	1,03

9	Karaganda	511,8	1 062 250	0,10	561,5	1 991 428	0,05
10	Pavlodar	2870	677 761	0,86	5813	1 292 964	0,86
11	West Kazakhstan	311	107 058	0,59	127	215 384	0,11
12	Kostanay	1201	244 474	1,00	2075	645 990	0,62
13	North Kazakhstan	205,6	120 537	0,35	306,9	195 535	0,30
14	Mangystau	67	116 154	0,12	44	175 628	0,05
15	Almaty	1080	504 496	0,43	1950	813 929	0,46
16	Shymkent	9926,5	240 542	8,36	20878,3	497 401	8,06
17	Nursultan	778,3	324 403	0,49	783	786 485	0,19
Note: Compiled by authors							

As noted above, the localization coefficient shows the degree of concentration of this industry in this region. If the coefficient is greater than one, then it is assumed that this industry is considered a branch of specialization.

According to the calculations made for 2015, the highest localization coefficient in the textile industry was in Shymkent (8.3). Next are the Turkestan, Akmola and Kostanay regions. In 2019, a significant increase in the localization coefficient compared to 2015 is observed in the Turkestan region by 1.72 times. Also, an increase occurred in the Almaty region; the coefficient was - 1.26 and the Kyzylorda region -1.03. A decrease in the localization coefficient is observed in the Akmola region from 2.96 in 2015 to 1.14 in 2019. A slight decrease occurred in the city of Shymkent (8,06). Shown in table 3.

TABLE 3. Coefficients of localization of clothing production in the regions of the Republic of Kazakhstan for 2015, 2019

Region	**Produced products in 2015, million tenge**	**The manufacturing industry of the region in 2015**	**Coefficient of localization in 2015**	**Produced products in 2019, million tenge**	**The manufacturing industry of the region in 2015**	**Coefficient of localization in 2019**
Akmolinskaya	356,8	231 415	0,25	358,5	641 931	0,15
Turkestan	250	172 028	0,23	355	244 586	0,38
Zhambyl	505,3	196 723	0,41	1161,7	352 056	0,87
Almaty	5709,2	462 705	1,97	9807,1	883 047	2,92
Aktobe	415	264 391	0,25	1408	605 300	0,61
Atyrau	572	335 679	0,27	1625	525 597	0,81
East Kazakhstan	3048,4	826 835	0,59	2906,7	1 560 350	0,49
Kyzylorda	138	90 556	0,24	451	145 740	0,81
Karaganda	4373	1 062 250	0,66	4291,8	1 991 428	0,57
Pavlodar	1438	677 761	0,34	1128	1 292 964	0,23
West Kazakhstan	632	107 058	0,94	731	215 384	0,89
Kostanay	1809	244 474	1,18	1673	645 990	0,68
North	1580,2	120 537	2,10	967,6	195 535	1,30

Kazakhstan						
Mangystau	1214	116 154	1,67	2280	175 628	3,42
Almaty	7063	504 496	2,24	6766	813 929	2,19
Shymkent	6266,9	240 542	4,17	4557,1	497 401	2,41
Nursultan	1995,9	324 403	0,98	3497,1	786 485	1,17

In the production of clothing for 2015, high localization coefficients are observed in the cities of Shymkent, Almaty, and in North Kazakhstan, Almaty, Mangistau and Kostanay regions. Compared to 2015, in 2019, the localization coefficient increased in the Almaty region by 1.5 times, in the Mangystau region by almost 2 times and in Nur-Sultan by 1.17 times. Along with this, in 2019, in some regions and cities (North Kazakhstan Region, Almaty, Shymkent), there was a decrease in localization coefficients. Shown in table 4.

TABLE 4. Coefficients of localization of production of leather and related products in the regions of the Republic of Kazakhstan for 2015, 2019

Region	Produced million tenge of products in 2015	Manufacturing industry of the region in 2015	coefficient of localization in 2015	Production of million tenge was produced in 2019	The manufacturing industry of the region in 2019	coefficient of localization in 2019
Akmolinskaya	54,3	231 415	0,23	796,3	641 931	0,66
Turkestan	66	172 028	0,37	21	244 586	0,05
Zhambylskaya	318,7	196 723	1,58	2 220,80	352 056	3,33
Almaty	526,5	462 705	1,11	941,1	883 047	0,56
Aktobe	-	264 391	-	2	605 300	0,00
Atyrau	-	335 679	-	62	525 597	0,06
East Kazakhstan	606,1	826 835	0,71	463,8	1 560 350	0,16
Kyzylorda	-	90 556	-	-	145 740	0,00
Karaganda	596,8	1 062 250	0,55	595,1	1 991 428	0,16
Pavlodar	1	677 761	0,00	53	1 292 964	0,02
West Kazakhstan	-	107 058	-	28	215 384	0,07
Kostanay	124	244 474	0,49	10	645 990	0,01
North Kazakhstan	-	120 537	0,00	-	195 535,4	-
Mangystau	558	116 154	4,68	667	175 628	2,01
city of Almaty	2943	504 496	5,68	4752	813 929	3,09
Shymkent	304,2	240 542	1,23	521,1	497 401	0,55
Nursultan	36,7	324 403	0,11	178,3	786 485	0,12
Note: Compiled by authors						

As shown in Table 4, in 2015, in the production of leather and related products, high localization coefficients were observed in the cities of Almaty, Shymkent, as well as in Mangistau, Zhambyl and Almaty regions. However, in 2019, the indicators fell in the Mangystau region by 2.33 times, in the Almaty region by 2 times, and in the cities of

Shymkent, Almaty by 2.23 and 1.84 times, respectively.

Since we are conducting research on light industry sectors, we need to find out their level of concentration and specialization in the regions of the country. To analyze the level of regional concentration of light industry sectors, we used official data published in regional statistical collections of the Republic of Kazakhstan. Based on these data, we calculated concentration indices for 14 regions and 3 megacities of Kazakhstan for 2015 and 2019. Concentration indices for all other regions of Kazakhstan for 2015 and 2019 were calculated similarly. Shown in table 5.

TABLE 5. Concentration coefficients in textile production by regions of the Republic of Kazakhstan for 2015, 2019

Region	Produced products in 2015, million tenge	Manufacturing industry of the region in 2015	The share of manufactured products in the manufacturing industry in 2015	HHI	Produced products million tenge in 2019	The manufacturing industry of the region in 2019	Share of manufactured products in the manufacturing industry in 2019	HHI
Akmolinskaya	3384	231 415	0,0146	0,000214	3 825,4	641 931	0,00596	0,000036
Turkestan	4884	172 028	0,0284	0,000806	12 621	244 586	0,05160	0,002663
Zhambylskaya	221,7	196 723	0,0011	0,000001	140,3	352 056	0,00040	0,000000
Almaty	2135,8	462 705	0,0046	0,000021	5770,7	883 047	0,00653	0,000043
Aktobe	152	264 391	0,0006	0,000000	736	605 300	0,00122	0,000001
Atyrau	572	335 679	0,0017	0,000003	2414	525 597	0,00459	0,000021
East Kazakhstan	961,4	826 835	0,0012	0,000001	1409,5	1560350	0,00090	0,000001
Kyzylorda	230	90 556	0,0025	0,000006	783	145 740	0,00537	0,000029
Karaganda	511,8	1 062 250	0,0005	0,000000	561,5	1991428	0,00028	0,000000
Pavlodar	2870	677 761	0,0042	0,000018	5813	1292964	0,00450	0,000020
West Kazakhstan	311	107 058	0,0029	0,000008	127	215 384	0,00059	0,000000
Kostanay	1201	244 474	0,0049	0,000024	2075	645 990	0,00321	0,000010
North Kazakhstan	205,6	120 537	0,0017	0,000003	306,9	195 535	0,00157	0,000002
Mangystau	67	116 154	0,0006	0,000000	44	175 628	0,00025	0,000000
Almaty	1080	504 496	0,0021	0,000005	1950	813 929	0,00240	0,000006
Shymkent	9926,5	240 542	0,0413	0,001703	20878,3	497 401	0,04197	0,001762
Nursultan	778,3	324 403	0,0024	0,000006	783	786 485	0,00100	0,000001
Note: Compiled by authors								

The results obtained show that the greatest concentration of the textile industry in 2015 was observed in Shymkent (0.001703). Further, the most concentrated are the Turkestan and Akmola regions (0.000806, 0.000214). In 2019, the concentration coefficients increased in Shymkent (0.001762) and Turkestan region (0.002663). In the same year, a significant decrease in concentration indicators was observed in the Akmola region. Shown in table 6.

TABLE 6. Coefficients of concentration in the production of clothing in the regions of the Republic of Kazakhstan for 2015, 2019

Region	Production of million tenge was produced in 2015	Manufacturing industry of the region in 2015.	The share of manufactured products in the manufacturing industry in 2015	HHI	Produced products million tenge in 2019	The manufacturing industry of the region in 2019	The share of manufactured products in the manufacturing industry in 2019	HHI
Akmolinskaya	356,8	231 415	0,00154	0,000002	358,5	641 931	0,0006	0,000000
Turkestan	250	172 028	0,00145	0,000002	355	244 586	0,0015	0,000002
Zhambylskaya	505,3	196 723	0,00257	0,000007	1161,7	352 056	0,0033	0,000011
Almaty	5709,2	462 705	0,01234	0,000152	9807,1	883 047	0,0111	0,000123
Aktobe	415	264 391	0,00157	0,000002	1408	605 300	0,0023	0,000005
Atyrau	572	335 679	0,00170	0,000003	1625	525 597	0,0031	0,000010
East Kazakhstan	3048,4	826 835	0,00369	0,000014	2906,7	1 560 350	0,0019	0,000003
Kyzylorda	138	90 556	0,00152	0,000002	451	145 740	0,0031	0,000010
Karaganda	4373	1 062 250	0,00412	0,000017	4291,8	1 991 428	0,0022	0,000005
Pavlodar	1438	677 761	0,00212	0,000005	1128	1 292 964	0,0009	0,000001
West Kazakhstan	632	107 058	0,00590	0,000035	731	215 384	0,0034	0,000012
Kostanay	1809	244 474	0,00740	0,000055	1673	645 990	0,0026	0,000007
North Kazakhstan	1580,2	120 537	0,01311	0,000172	967,6	195 535	0,0049	0,000024
Mangystau	1214	116 154	0,01045	0,000109	2280	175 628	0,0130	0,000169
city of Almaty	7063	504 496	0,01400	0,000196	6766	813 929	0,0083	0,000069
Shymkent	6266,9	240 542	0,02605	0,000679	4557,1	497 401	0,0092	0,000084
Nursultan	1995,9	324 403	0,00615	0,000038	3497,1	786 485	0,0044	0,000020
Note: Compiled by authors								

In the garment industry in 2015, high production concentration coefficients were observed in Shymkent, Almaty, Almaty, North Kazakhstan and Mangistau regions. Kostanay, West Kazakhstan regions and the city of Nur-Sultan can be attributed to the medium-concentrated ones. The low-concentration regions include the Karaganda and East Kazakhstan regions. In 2019, the situation with concentration levels worsened. A high concentration of production is observed in Mangystau and Almaty regions, the average concentration in Shymkent and Almaty, and a low concentration of production is observed in North Kazakhstan, West Kazakhstan, Zhambyl regions and in Nur-Sultan. Shown in table 7.

TABLE 7. Concentration coefficients in the production of leather and related products by regions of the Republic of Kazakhstan for 2015, 2019

Region	Production of million tenge was produced in 2015	The manufacturing industry of the region in 2015	The share of manufactured products in the manufacturing industry in 2015	HHI	Produced products million tenge in 2019.	The manufacturing industry of the region in 2019	Share of manufactured products in the manufacturing industry in 2019	HHI
Akmolinskaya	54,3	231 415	0,00023	0,000000	796,3	641 931	0,00124	0,000002
Turkestan	66	172 028	0,00038	0,000000	21	244 586	0,00009	0,000000
Zhambylskaya	318,7	196 723	0,00162	0,000003	2220,80	352 056	0,00631	0,000040
Almaty	526,5	462 705	0,00114	0,000001	941,1	883 047	0,00107	0,000001
Aktobe	-	264 391	-	-	2	605 300	0,00000	0,000000
Atyrau	-	335 679	-	-	62	525 597	0,00012	0,000000
East Kazakhstan	606,1	826 835	0,00073	0,000001	463,8	1560350	0,00030	0,000000
Kyzylorda	-	90 556		0,000000	-	145 740		-
Karaganda	596,8	1 062 250	0,00056	0,000000	595,1	1991428	0,00030	0,000000
Pavlodar	1	677 761	0,00000	0,000000	53	1292964	0,00004	0,000000
West Kazakhstan		107 058	-	-	28	215 384	0,00013	0,000000
Kostanay	124	244 474	0,00051	0,000000	10	645 990	0,00002	0,000000
North Kazakhstan	-	120 537		-	-	195535, 4		-
Mangystau	558	116 154	0,00480	0,000023	667	175 628	0,00380	0,000014
city of Almaty	2943	504 496	0,00583	0,000034	4752	813 929	0,00584	0,000034
Shymkent	304,2	240 542	0,00126	0,000002	521,1	497 401	0,00105	0,000001
Nursultan	36,7	324 403	0,00011	0,000000	178,3	786 485	0,00023	0,000000
Note: Calculated and compiled by the authors on the basis of data from the Bureau of National statistics								

In 2015, the Mangystau region and Almaty showed high concentration coefficients in the production of leather and related products. In 2019, high levels of production concentration were observed in Zhambyl and Mangystau regions, and in Almaty, the concentration coefficient remained at the level of 2015.

The analysis showed that in the Turkestan region, and in particular in Shymkent, the highest indicator of concentration and localization in the production of textiles. As is known, the competitive advantages of the Turkestan region are a high level of natural resources and human potential. The most important problem of improving the territorial organization of the textile industry in the Turkestan region is the elimination of the existing disparity between the production of cotton, cotton fiber and their processing. The creation of missing enterprises for the primary processing of raw cotton will increase the production of cotton fabrics in the country, which are in high demand in the domestic market, and eliminate irrational logistics.

5. CONCLUSIONS

Based on the results obtained, conclusions can be drawn about the feasibility of

creating a regional textile cluster in the Turkestan region. For example, in Shymkent, there has already been an attempt to create a cotton-textile cluster in the SEZ "Ontustik". There are suitable conditions for business development. There is infrastructure – gas supply, telephony, developed road infrastructure, electrical substation, water supply and sewerage. Investors, according to the legislation of the Republic of Kazakhstan, are exempt from paying corporate income tax, property and land tax and VAT. Moreover, there is a real possibility of creating a chemical fiber cluster since an oil refinery is located next to the SEZ.

A regional cluster in the Turkestan region can be created based on such raw cotton processing enterprises as LLP "Cotton Processing Plant "Myrzakent", LLP "AkAltyn", JSC "Makta Corporation", LLP "KhansuarInvestCompany", LLP "Bagara-Makta". Local enterprises producing cotton fabrics include Azala Textile LLP, where the entire cotton processing cycle is carried out. Also, such enterprises as Azala Cotton LLP (Shymkent) are engaged in the production of finished textiles.

At the same time, based on analysis results, the creation of a regional textile cluster in Almaty, based on the existing two enterprises "AKHBK-Kargaly" LLP and "Universal Advertising" LLP.

The improvement of the territorial organization of the garment industry consists of the creation of enterprises with unified cutting and preparatory workshops and the subsequent development of sewing clusters. In the future, this will have an impact on the level of foreign trade in textile fabrics. The shortage of enterprises performing a full cycle of production of fabrics used in the garment industry leads to a decrease in the production of finished textiles, their high cost and an increase in import volumes. Based on the results of localization and concentration of production, regional sewing clusters can be created in cities such as Shymkent, Almaty, as well as in North Kazakhstan, Almaty, Mangistau and Kostanay regions.

In the garment industry, large enterprises on the basis of which sewing clusters can be created include the corporation "Saule Sewing Factory" LLP (Shymkent), "DianaPlus" LLP (Uralsk), "Kazakhstan Text-line" LLP (Almaty), "KazSPO-N" LLP, "Erke" LLP-nur" (Almaty), LLP "Knitting factory "Zheide", LLP "Altex", LLP "PKF"of Kazakhstan Text-Line", LLP "KazSPO-N", LLP "Talgar Knitting Factory", LLP "Rauan1.

Based on the results obtained, the most promising areas for creating regional clusters in the leather and footwear industry today are the Almaty and Zhambyl regions. Regional clusters can be created in Zhambyl region on the basis of the Tarazkozhobuv LLP plant and Almaty region on the basis of the Almaty Tannery LLP Almaty Tannery. At these factories, a complete cycle of leather processing is underway, low-grade products are produced: semi-finished products of Vetbl, crust, cheprak, polucheprak, etc. In the Mangystau region in 2019, the situation is deteriorating, which requires timely measures on the part of the regional leadership.

Despite the large enterprises available in the East Kazakhstan Region, such as Semipalatinsk Leather and Fur Combine LLP, Semipalatinsk Shoe Factory LLP, Rudnensky Tannery LLP, localization and concentration indicators are closer to zero. Localization and concentration coefficients for the Almaty region remain stable from 2015 to 2019.

The results of the analysis show that the creation of regional clusters of the cotton-

textile, clothing and leather-footwear industries in the regions of the country will increase the level of its competitiveness. With the active use of the strengths and capabilities of each area, it is possible to achieve significant success in its development. Namely, the regions have opportunities for the production of fabrics and nonwovens, animal skins from their raw materials and oil refining products.

For active work on the formation of regional clusters, it is necessary to create working groups under the regional administrations in order to develop programs for the development of textile, clothing and leather and shoe production, conduct an analysis to identify the prospects for the development of the industry and create conditions for stimulating business investment activity.

Taking into account the proposals for the creation of regional clusters, it can be argued that the hypothesis put forward by the authors that the concentration of light industry in certain regions will increase the level of competitiveness of the industry can be confirmed in practice.

The results obtained can be used in further scientific research to analyze the distribution of productive forces, assess the level of concentration of industrial enterprises and determine the territorial localization zones of various sectors of the national economy, as well as recommendations for improving the territorial organization of production and making effective management decisions on the implementation of economic policy in the regions.

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AUTHOR BIOGRAPHIES

Nailya K. Nurlanova – Doctor of Economic Sciences, professor, Chief Researcher, Institute of economics of the Committee of science MSHE RK, Almaty, Kazakhstan. Email: n.k.nurlanova@gmail.com, ORCID ID: https://orcid.org/0000-0002-4210-3783

***Akedil K. Omarov** – PhD candidate, Researcher, Institute of economics of the Committee of science MSHE RK, Almaty, Kazakhstan. Email: akedil1981@mail.ru, ORCID ID: https://orcid.org/0000-0003-4403-3237

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Application of Coordinated Management Model Jointly with Economic Agents

Gulmira Mukhanova[1*] | Zhazira Tymbayeva[1] | Aygerym Kazhmuratova[2] | Dinara Satybaldiyeva[1] | Alfonz Antoni[3]

[1] Satbayev University, Almaty, Kazakhstan

[2] Al-Farabi Kazakh National university, Almaty, Kazakhstan

[3] Budapest Metropolitan University, Budapest, Hungary

Corresponding author:
Gulmira Mukhanova - Candidate of Technical Sciences., associate professor Satbayev University, Almaty, Kazakhstan. Email: g.mukhanova@satbayev.university

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Abstract

In the modern conception of economic thought, competition is one of the basic conditions for the functioning of a market economy. Nevertheless, in today's unstable market environment, competition is not effective. In this context, we believe that cooperation is a factor in ensuring the stability of the economic system. In this context, cooperation is a factor in ensuring the stability of the economic system. In this connection, the article considers the role of competition in development of society and necessity of its transition to a new paradigm of doing business in the rapidly changing conditions of external environment. A mathematical model of coordinated management has been used in order to determine the possible benefits of cooperation between partners in the markets for goods and services. The results of model research are presented from the standpoint of active system theory, and the model was obtained with the condition of perfect matching, corresponding with manufacturers' cooperation. The goal of the research is the study of competitive model of national economy functioning and the identification of promising trends in business activity of economic subjects on the basis of the model of cooperation. The aim of the study is to examine competition and cooperation as driving force in the development of economic actors and to substantiate the role of each at different stages of their functioning. In this respect, the paper identifies the following objectives: to examine the role of competition in the development of business environment in the transition to a new paradigm of doing business; to identify the relevance of competition and co-operation at different stages of the development of the external environment in a rapidly changing environment; to determine the possible benefits of cooperation between partners in goods and services markets using a mathematical model of coordinated management. As a result of solving the above objectives on the basis of the theory of active systems, a model with a perfect matching condition, which corresponds to the cooperation of producers, has been obtained. A proof base has been obtained that by using the potential of cooperation, economic subjects' function under conditions of maximum profit.

Keywords: Competition, Cooperation, Economic Subjects, Manufacture, Resources, Products

SCSTI: 334.012.23
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1. INTRODUCTION

At the current functioning stage, the global economy is facing several challenges, such as the COVID-19 pandemic, the geopolitical situation, and the growing global financial and economic crisis. Today, the world is searching for new ways and mechanisms for effective functioning in a rapidly changing environment.

One of the most important development factors in economy on micro- and macro levels until recently has remained the competitiveness, and rivalry between economic agents to attract and use production factors, improving the results of economic activities, and gain influence in markets.

This rivalry is called competitive struggle or competition in connection with its critical role and functions in economy and society has long been the subject of research of economists. Etymologically, the word "competition" refers to Latin competition, meaning clash, contest. Competition refers to the social form of collision between subjects of market economy in the process of implementing their economic interests (Kuznetsova, 2012). Almost all economic schools considered various aspects related to competition. Up to the present time, it has been believed that competition is the only way to identify the most effective agents of economic relations and, therefore, the development of the economy.

Originally, strategy was understood as "the science of war" or the art of constructing a scheme of warfare that allows the warlord to ensure total victory through the efficient use of limited combat resources. In this context, "competition" or "rivalry" is closely related to the concept of "strategy". Therefore, in academic research, the notion of competition is often seen as a central element of strategy, which is combined into a concept such as "competitive behavior strategy" (Zhangaliyeva, 2017).

The realization of any chosen strategy by economic actors means their pursuit of personal goals and the creation of conditions and benefits for the positive socio-economic development of society. A. Smith saw such a situation as the 'invisible hand of the market', in which the choice by the subjects of social exchange of any of their chosen strategies leads to the development of social relations in the long or short term (Kishigin, 2022).

In formulating their development strategies, business structures always face a choice - either to pursue a policy based on competition or on the possibility of mutually beneficial cooperation. This choice is based, on the one hand, on the protection of economic, social, political and other interests of the actors and, on the other hand, the availability and possibility of realizing their competitive advantages.

Under competition, ownership of assets is used by actors as counteracting factors in competition, while under cooperation, on the contrary, it is combined, creating infrastructural links that enhance positive synergies in the activities of actors of socio-economic development of society and the state.

Research questions:

1) Is competition effective as a driving force for the development of society and the state in the current context?

2) Is cooperation as a form of interaction between actors of socio-economic

development effective?

3) What are the benefits of cooperation for business development?

In our view, the answers to these questions will allow us to address a number of future challenges aimed at forming the basis for the development of economic actors in the context of uncertainty in global markets.

2. LITERATURE REVIEW

M. Porter (1989) made a significant contribution to the development of competition theory. He believed that competitive actors in forming socio-economic development strategies through their competitive advantages could win in the short term and free the market from outsiders in the medium and long term.

According to Fatkhutdinov (2002), competition should be understood as "the process of an entity managing its competitive advantage to win or achieve other objectives against competitors for the satisfaction of objective and subjective needs under the law or in the natural environment".

The most important conclusion of these views on these aspects is that the notion of competition outside social relations loses all meaning: competition is always a product of social relations, the level of development of which reflects the development of the institutional environment shaped by society and the state in the process of realizing and protecting their interests.

A separate area of research is the study of competitive struggle as a process by which the subjects of competitive relations solve complex, multi-level socio-economic conflicts aimed at harmonizing their interests. In this sense, the competitive struggle is one of the ways of solving the conflict between the subjects of social exchange.

Of course, the idea of exploring different strategies for socio-economic development of society is not new, but understanding the nature of its choices can enable a transition from spontaneous strategic planning based on trial and error to the development of scientifically based methods for building social relations. In this context, the study of the two strands of development strategies - competition and cooperation - two key complementary strategies for the socio-economic development of society and the state, seems important.

The effectiveness of cooperation at certain stages of development of society or groups of people can also be considered within the spiral dynamic's theory, particularly, in Frederic Laloux (2014) monograph "Reinventing organizations". It has proved the effectiveness of cooperation between social group members in achieving a common goal and personal interests.

3. METHODOLOGY

At this stage, the goals of competition and cooperation research for different stakeholders (consumers, producers, states) and the nature of understanding the influence of these terms on the behavior of market participants change. As a result, there are many problems of terminological, methodological and instrumental nature in solving the problems of studying competition and cooperation and related tasks.

Complexity, synergy, considering different aspects of the problem, including the characteristics and dynamics of economic factors, involves the need to study the problem not by the mechanical union of the results of various studies, and consider it at the methodological level, involving the definition of a system of interdependent goals and focus on them, the structuring of the object and subject of research, the development and integration of a system of methods.

Thus, three groups of methods were used in the study:

- empirical methods, such as comparison, description, observation;
- general logical methods - analysis and synthesis, induction and deduction, generalization, analogy;
- methods of systematization of scientific knowledge, on the basis of which the effectiveness of cooperation as a driver of development of society and business structures was investigated.

The mathematical models have been investigated in terms of active systems theory and organizational management theory. In further research, methods of game theory with opposing interests can be applied.

The theory of active systems studies socio-economic or organizational systems where the main elements are people. The principle of coordinated management in the theory of active systems solves the problems of optimal management of a socio-economic or organizational system. The mathematical models have been investigated in terms of active systems theory and organizational management theory. The basic idea of the principle of coordinated management is to find a state of the system where the interests of all elements of the system are taken into account. The management of the system aims to produce control actions that lead to coordinated solutions to the challenges faced by the system. When studying a socio-economic system, a game-theoretic approach is used. For example, consider a system where all participants aim to minimize costs when purchasing resources. Solving the problem without applying the principle of coordinated management leads to the fact that the participants with the lowest costs have the highest priority. In this case, the participants in the system with the highest costs will not be satisfied with the solution. Applying the principle of coordinated control, the following steps will be carried out:

- constructing a dual model to the original mathematical model;
- construction of the coordinated management conditions.

The condition of consistent management will allow taking into account the interests of all participants of the system. As a result of solving the problem we will get the agreed plans (strategies).

In further research, methods of game theory with opposing interests can be applied. A similar solution to the coordinated plans can be obtained by applying game theory with opposing interests.

4. FINDINGS AND DISCUSSION

In the foreseeable future, the integrity of the group members based on cooperation can lead to fundamental changes in the functioning and interaction between the subjects of socio-economic development of society and the state.

The development of business structures based on integrity and cooperation, using the example of teal companies as the most effective form of interaction between its participants under conditions of global uncertainty, was examined in the work of domestic scholars (Tymbayeva et al., 2022)

Based on figure 1, at a certain stage of society's development, the competitive model of the market economy had its relevance and efficiency in economic relations. Therefore, competition as a business development concept was formed and developed in the works of representatives of the classical economic school, which is still actively used today.

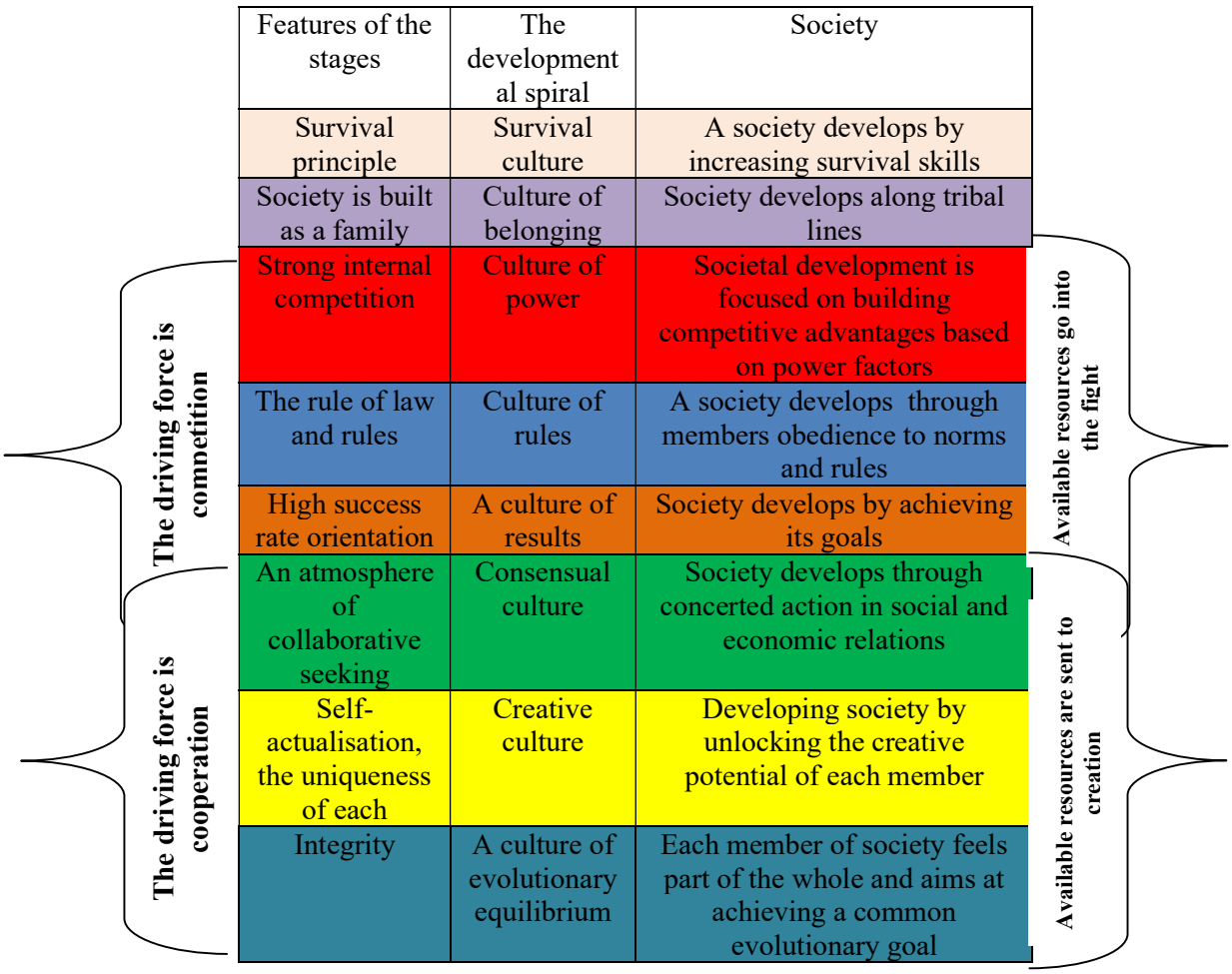

FIGURE 1. Competition and cooperation at different stages of social development
Note: Compiled by authors based on (Tymbayeva et al., 2022)

Some aspects of competition have been considered by virtually all schools of economics and, until today, competition is considered to be the only way of identifying the most efficient actors in economic relations, and thus of developing the economy.

At a certain stage of economic and industrial development a competitive model of economic relations in the market economy had its relevance, effectiveness. It is worth noting that competition as a concept of business development has been formed and

developed in papers by representatives of classical economic school, which are actively used nowadays.

However, today in the conditions of transition to the innovative stage of development of society with the principles of human capital development, competition shows its limitations and inefficiencies. Following are factors in reducing the role of competition:

- the quality and speed of innovation processes (free flow of information) are slowing down in terms of competition because this model is based on isolation;
- high competition rate and constant tension in the struggle against rivals have unhealthy mental and physical side effects for people, putting them into a stressful state;
- competition often means loss in billions of dollars of manufactured products for those companies that did not survive the competition;
- mass production becomes unnecessary and unprofitable in an environment of limited resources, requiring ever-expanding demand and consumption of goods and services;
- "competitive" model ceases to be effective in terms of limitations and exhaustion of resources in the absence of "new lands".

As opposed to competition, more and more scientists in the world have come to the opinion that cooperation has more benefits for business development. For example, the eastern model of business management, based on cooperation. An example of "Japanese economic miracle" convincingly shows that the business is based on cooperation, and can be more successful than those built on sharp rivalry. Competition and cooperation, as distinct underlying strategies and their interaction within the bottleneck strategy, have received considerable attention in the works of several authors (Douglas et.al., 2017).

Cooperation, in turn, is seen in contemporary scientific research as a form of interaction between socio-economic development actors and a social strategy (Akulich & Bolikova, 2018).

However, the analysis of definitions of cooperation highlights several key features of the concept, namely:

- the multiplicity of participants in the process;
- the existence of a common goal reflecting the interests of these participants;
- the implementation of joint activities based on mutual understanding and trust;
- the use of formal interaction algorithms, as well as informal limitations that reduce the risks of uncertainty when choosing a cooperation strategy.

It should be noted that almost all studies on the relationship between the actors of socio-economic development of society and the state have suggested that in real interaction, the actors of social relations do not share the concepts of competition and cooperation.

At the same time, concepts such as "cooperation between competing entities", "co-competition", and "competitive partnership" were formed, the reasons for which were considered to be the similarity of the desired objectives and/or the means of achieving them (Batuyeva, 2017; Kishigin, 2018; Tereshin, 2015).

Cooperation takes place where participants of interaction have a common goal and common means of achieving this goal. In our opinion, this form of interaction between the participants reflects the stage of "result culture" in Figure 1. Society at this stage is at the stage of transition from competition as an engine to cooperation.

Rivalry arises when people who interact have individual goals or diverge in the means

to achieve them. Therefore, researchers have come to see differences of interest as a major source of the more serious forms of competition.

This approach to justify the choice of market relations participants between competition and cooperation is debatable. The subjects of competitive struggle always have different interests, so the choice of instruments of social relations is determined by the ratio of costs and revenues that the parties will eventually receive in the process of implementing their alternative interaction options: competition or cooperation.

These concepts have been considered by researchers from the position of institutionalism, where the relationships are based on the relations to infrastructural links between the subjects making their choices. According to Pashina (2015) the institutional environment is formed by market and government instruments regulating economic relations.

At the same time, the basis for constructing infrastructural links is the possibility of sharing the resources possessed by the subjects of socio-economic interaction. As a result of the joint use of resources by economic entities, new competitive advantages are formed.

However, from an institutional point of view, a positive multiplier effect can be seen in a cooperation strategy based on the interaction of classical market mechanisms aimed at reducing production costs and institutional mechanisms.

It should also be noted that there are situations in which a decrease in production costs can lead to an increase in transaction costs and conversely, a decrease in transaction costs can lead to an increase in production costs. In this sense, an analysis of the total costs of forming and changing the system of infrastructure links of social relations is necessary. In general, infrastructural linkages break down when there is competition. However, when there is cooperation, they improve, forming various synergies between actors using their specific assets.

In exploring the concept of strategy for socio-economic development of social relations, it should be emphasized that any strategy determines the choice of combinations (alternatives) in various activities between subjects of social exchanges.

In general, it can be argued that cooperation between actors is linked to mechanisms to harmonize their interests. At the same time, the desire of the actors to harmonize their interests forms new forms and mechanisms of cooperation. On the contrary, the lack of such desire leads to limitation of mutually beneficial ties.

Today, we can state the fact that "competitive" model that appeared in the era of primitive accumulation of capital comes to its logical conclusion, and there is a transition to innovative model of development of a society based on the energy-efficient, resource-efficient green economy. Competition loses its effectiveness in the evolutionary transition from industrial development (productive capital) to the innovation stage of development of society, which is based on the development of human capital.

In its turn the development of innovation, involves two tasks:

- innovations give impetus to the development of human capital and science – as stimulating function;
- innovations that also carry the reproductive function are the source of economic growth and change the structure of gross domestic product in favor of its higher-tech.

Thus, innovation in the context of limited resources is a renewable resource, which

forms a great potential for the development of the economy.

Below are the possible benefits of joint activities of partners in the market:

- the quality and speed of innovative processes directly depend on the degree of cooperation at all levels;
- creativity and innovations are impossible without the free flow of information and friendly atmosphere — the inherent attributes of cooperation;
- through cooperation and sharing of resources, the company can enter new markets;
- the use of interchangeable parts, approval of standards by business entities;
- partnerships with suppliers, contractors and consumers are often the key to business survival and, indeed, its profitability and improvement of production processes and services;
- the approach, based on the high level of cooperation involves long-term relationships, and a willingness to compromise, perhaps at the expense of short-term profit, which form stable relationships;
- due to the partnership, beneficial interaction and cooperation, atmosphere, employees are less prone to stress, which have a positive impact on the mental, mental and physical health;
- cooperation and other models of pro-social/unselfish behaviors tend to have positive economic and the social impact, increasing social responsibility of business.

Furthermore, there is evidence that cooperation creates a kind of "runner's high" effect. Although this study is not conclusive, it is quite promising. People who exercise regularly, "cooperative" and people who always come to the aid of others are also experiencing the "runner's high", which can be better described as calmness or a sense of freedom from stress. As the researchers note, co-operation, not competition, is preferred.

In addition, people who develop the attitude of cooperation feel better control over their lives and do not live for approval from others. They usually feel good. This contrasts sharply with the ongoing work "to the point of exhaustion" of competitive person (Burkov et al., 2004).

Thus, at this stage of development of economy and society, the obvious alternative to competition is cooperation. The accuracy of this provision can be traced by means of mathematical tools.

Consider the market of producers of productions of various types. Let there be n producers, m products. The production capacity of each manufacturer is known for each product, and market (consumer) demand for each type of product. Production companies have the value (r) (coefficient) describing the production expenditures per unit for each product type.

As known, the aim of producers is to minimize the expenditures during the manufacturing of the production (r) and the complete satisfaction of consumer demand, but not exceeding it, taken into account its production capacity.

The mathematical model of the described task is as follows:

$$F = \sum_{i=1}^{n\Sigma} \sum_{j=1}^{m\Sigma} r_{ij} x_{ij} \rightarrow min\ , \qquad (1)$$

with restrictions

$$\sum_{i=1}^{n} x_{ij} \geq B_j, \quad j = \overline{1,m}, \tag{2}$$

$$x_{ij} \leq a_{ij}, \; i = \overline{1,n}, j = \overline{1,m}, \tag{3}$$

$$x_{ij} \geq 0, \; i = \overline{1,n}, j = \overline{1,m}, \tag{4}$$

Where:

x_{ij} - the number of releasing products of j type by i manufacture;

r_{ij} - expenditures of i manufacturer per unit production of j type;

B_j - the demand for the product of type j;

a_{ij} - production capacity of i manufacturer product type of j.

Give explanations to the model equations (1-4):

(1) - the objective function of the problem, cost minimization;

(2) - the limit on the demand of products of each species, the volume of production of j type does not exceed its demand on the market;

(3) - the production volume does not exceed the production capacity of the manufacturer for each product.

The described situation in the market of manufacturers and the mathematical model represents the competition between manufacturers. Each manufacturer strives to produce products under its production capacity. The solution to the problem depends on the values r_{ij}.

For example, consider the solution of the problem for one product, may $j = 1$.

Sort $\{r_{i1}\}$, $i = \overline{1,n}$, ascending $r_{11} \leq r_{21} \leq \ldots \leq r_{n1}$, then the following expression takes place

$$\sum_{i=1}^{l} a_{i1} \leq B_1 > \sum_{i=1}^{l+1} a_{i1}. \tag{5}$$

It means

$$x_{i1} = \begin{cases} a_{i1}, & i = \overline{1,l-1}, \\ B_1 - \sum_{i=1}^{l-1} a_{i1}, & i = l, \\ 0, & i = \overline{l+1,m}. \end{cases} \tag{6}$$

The same solution will be for other types of products. Therefore, producers with the lowest values r_{ij} will work at full capacity. Some – not at full, while the rest of the

manufacturers with the highest value r_{ij} will not be producing a particular product, although their products can be demanded.

Now consider the situation on the market in the event of the cooperation of the manufacturers. There will be conducted a study of the model (1-4) from the standpoint of the theory of active systems (Novikov, 2005). To solve the problem (1-4), consider the dual to the task by defining the dual variables $p_j \geq 0$, $q_{ij} \geq 0$ ($i = \overline{1,n}, j = \overline{1,m}$):

$$W = -\sum_{i=1}^{n}\sum_{j=1}^{m} a_{ij}q_{ij} + \sum_{j=1}^{m} B_j p_j \to max, \quad (7)$$

with restrictions

$$p_j - q_{ij} \leq r_{ij},\ i = \overline{1,n}, j = \overline{1,m}. \quad (8)$$

Write the ratio of "complementary slackness":

$$\forall i, j: \quad (p_j - q_{ij} - r_{ij})x_{ij} = o \quad (9)$$

From conditions (7) in the optimal solution of the dual problem are $q_{ij}^o = max(0, p_j^o - r_{ij})$, для $i = \overline{1,n},\ j = \overline{1,m}$.

Condition (7) can be written in the following form:

$$\left[\max_j (p_j^o - r_{ij}) - (p_j - r_{ij})\right] x_{ij} = 0,\ i = \overline{1,n},\ j = \overline{1,m}$$

Thus, under the law, open governance have the task of coordinated management the following:

$$F = \sum_{i=1}^{n\Sigma}\sum_{j=1}^{m\Sigma} r_{ij}x_{ij} \to min\ , \quad (10)$$

with restrictions

$$\sum_{i=1}^{n} x_{ij} \geq B_j,\ \ j = \overline{1,m}, \quad (11)$$

$$x_{ij} \leq a_{ij},\ i = \overline{1,n}, j = \overline{1,m}, \quad (12)$$

$$\left[\max_j (p_j - r_{ij}) - (p_j - r_{ij})\right] x_{ij} = 0,\ i = \overline{1,n},\ j = \overline{1,m}, \quad (13)$$

$$x_{ij} \geq 0,\ i = \overline{1,n}, j = \overline{1,m}, \quad (14)$$

Where the conditions (14) are the conditions of a perfect matching.

The result of solving the problem (10-14) is determined by what type of product it is preferable to produce by the manufacturer to achieve maximum profitability. In this case, each manufacturer will operate in circumstances where it's normal profit will be at its maximum value. Therefore, the problem (10-14) with the condition of perfect matching defines the cooperation of the manufacturers.

5. CONCLUSIONS

Thus, the model of coordinated control with the condition "complementary slackness" demonstrates the effectiveness of cooperation in the new conditions of functioning of the world economy, which contributes to the dynamic development of production and leads to the well-being of society. The study concludes that, at this stage of society's development, the competitive model is losing its relevance and effectiveness in economic relations. Because development based on competition leads to a loss of scarce resources. Moreover, cooperation, through the sharing of resources and the effective interaction of all actors, creates the conditions for functioning at higher levels of socio-economic development of society, achieving evolutionary goals. In the considered socio-economic system, the main participants are producers of different types of products. A mathematical model of the task, including the target function and the constraint conditions, is constructed. The task is to determine the optimal production plan. In the study of this system a game-theoretic approach is applied. All participants-producers are interested in production and their functioning depends on the costs of production. In the study of this system from the perspective of the theory of active systems, the governing body applies two principles:

1) open control;

2) coordinated control.

With the first principle, the solution is simple. The participant obtains the highest production plan with the lowest costs. With the second principle, a game-theoretic approach is applied. The condition of coordinated management is constructed through the construction of a dual problem in the initial model. The fulfillment of the condition of coordinated planning (management) leads optimal management, when the producers receive production plans in accordance with their interests. Subsequent actions will be collaborative in nature.

As the model has shown, cooperation is a more effective driver of social development than competition. In the future, it would be possible to investigate the degree of influence of cooperation on each of the stages of socio-economic system development, such as consensual culture, creative culture, and a culture of evolutionary equilibrium.

In general, for Kazakhstan at the present stage in the rapidly changing landscape of the global economy, there is a need to switch to more effective drivers of economic capacity building, such as cooperation.

Small and medium-sized businesses find it difficult to face the challenges of today's world when their operating environment is changing rapidly. Therefore, the potential for cooperation must be exercised in such a way that business entities, through elements of

cooperation, complement and support the viability of the company as well as to achieve their goals. Based on cooperation, they could share risks and develop adequate measures for efficient functioning.

Business structures, relying on cooperation as a driving force, can evolve to higher levels along the development spiral, which is the main objective of the functioning of any economic entity in the transition to a post-industrial economy, where the creating of human capital is an important link.

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AUTHOR BIOGRAPHIES

***Gulmira Mukhanova** – Candidate of Technical Sciences, Associate Professor, Satbayev University, Almaty, Kazakhstan. Email: g.mukhanova@satbayev.university, ORCID ID: https://orcid.org/0000-0003-4985-4018

Zhazira Tymbayeva - Candidate of Economic Sciences, Associate Professor, Satbayev University, Almaty, Kazakhstan. Email: zh.tymbayeva@satbayev.university, ORCID ID: https://orcid.org/0000-0002-7705-9874

Aygerym Kazhmuratova - Candidate of Economic Sciences, Senior Lecturer, Al-Farabi Kazakh National university, Almaty, Kazakhstan. Email: aigerim_k71@mail.ru, Scopus ID: 57212377491

Dinara Satybaldiyeva – PhD, Associate Professor, Satbayev University, Almaty, Kazakhstan. Email: d.satybaldiyeva@satbayev.university, ORCID ID: https://orcid.org/0000-0001-6494-0681

Alfonz Antoni – PhD, Budapest Metropolitan University. Email: alfonz.antoni@elalog.org, Scopus ID: 660343514

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Analysis of the Development of Creative Industries in Kazakhstan: the Qualitative Analysis

Aziza Zhuparova[1*] | **Ryszard Pukala**[2] | **Raigul Doszhan**[1]

[1] Al-Farabi Kazakh National University, Almaty, Kazakhstan

[2] Bronislaw Markiewicz State University of Technology and Economics, Jarosław, Poland

Corresponding author:
Aziza Zhuparova - PhD, Al-Farabi Kazakh National University, Almaty, Kazakhstan. Email: aziza.zhuparova@gmail.com

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EJEBS

Abstract

The creative industries sector is the fastest growing in developed and developing countries. The relevance of this topic is high for countries in transition, such as Kazakhstan, which have regional specificities and political narratives. This study contributes to constructing a theory of the features of the development of creative industries in Kazakhstan. The primary purpose of the paper is to understand how organizations in developing countries deal with the complexity of a creative business. A study was conducted using the qualitative method to better understand the landscape of creative industries in Kazakhstan. A total 34 semi-structured interviews were conducted. This allowed us to understand better the type of business, the founders' activities, the financing structure, and the obstacles that had to be faced. The survey included areas such as type of business, founder activity, funding structure, and barriers to the development of creative industries in Kazakhstan to study how representatives of the sector cope with the difficulties of starting a creative business, in particular motivation about founders, factors, and obstacles to success. Overall, the results point to insufficient support from government agencies, a lack of available resources to support entrepreneurs, a lack of access to information, and a lack of skills. The results show a lack of government support and human resources. The results showed that the main problem for the development of creative industries is the brain drain from Kazakhstan, the lack of the latest technologies and materials, and their import.

Keywords: Small And Medium-Sized Enterprises, Kazakhstan, Semi-Structured Interview, Qualitative Analysis, Emerging Economy, Creative Economy

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1. INTRODUCTION

The nature of the modern economy, which is global, networked, and informational, has stimulated the concept of the creative economy. The importance of the creative economy in the modern world has been recognized in the academic and political arenas. Since the late 1990s, "cultural-creative industries" or "creative economy" has been attracting more and more attention due to their practical application and usefulness for developing the country's economy. The concept of creative industries first emerged in the UK with the decision of the British Labor government to establish the Creative Industries Task Force (CITF) (Flew & Cunningham, 2010).

Most countries consider the cultural or creative economy a key element in policy development (De Beukelaer, 2014). Initially, the development of creative industries originated in technologically advanced countries, but their influence quickly spread worldwide. Although the creative industry discourse was introduced in the United Kingdom, it soon spread worldwide, including in developed countries such as the United States, Singapore, and China. The experience of countries such as Korea, Singapore, and China, where the development of creative industries is on a trajectory unique in emerging markets, despite the lack of research on creative industries (Keane, 2016). These Asian countries have been considered the driving force behind developing creative industries in the Asian region for decades. In this regard, many states define development plans and methods of supporting creative industries.

Creative industries bring certain benefits where they are located: they stimulate regional regeneration, accelerate economic growth, increase employment, increase social inclusion and improve economic activity (UNCTAD, 2018).

Early research focuses on the experience of developing cultural and creative industries in technologically advanced countries. However, for countries with economies in transition, the lack of research on the development of the network core leads to a slowdown in the development of policies for the development of cultural and creative industries.

Kazakhstan, realizing the importance of developing creative industries, is also interested in developing creative industries in the region. The peculiarity of the development of economic institutions due to the transitional stage of development is constrained by several factors. For example, the lack of official statistics and knowledge about the development of creative industries and inexperience in this area repels transition countries from developed ones (Neuwirth, 2014). These factors lead to a lag in the development of the industry.

Kazakhstan is one of the large countries of Central Asia with an undiversified economy focused on the export of minerals; it is essential to determine the vector of development toward new technologies and creative ideas. This determines the importance of studying the factors hindering creative industries' development in Kazakhstan's developing economy.

The study's primary purpose is to analyze the features of doing business in the creative industries. It highlights the barriers and conditions for developing creative industries in developing countries.

RQ1. How are creative industries developing markets in developing countries?

Finally, we examine the motivations for and barriers to developing creative industries and make policy recommendations for such countries.

2. LITERATURE REVIEW

To study the development of creative industries in developing countries, we will focus on small and medium-sized enterprises (SMEs). There are a number of studies suggesting that SMEs are particularly well suited to the creation and development of creative industries (Boutinot & Delacour, 2020). Moreover, empirical research confirms that creative industries require managerial thinking based on flexibility, agility and creativity, which is typical for SMEs.

An analysis of previous studies shows the difficulty in defining a unified concept of the creative economy, especially for countries with underdeveloped economies. First of all, this is due to the motives for implementing the policy in developing creative industries. In developed countries where the level of development of creative industries is at a high level, such as the countries of Western Europe, North America, and Australia, the creative economy is mainly used to restore the economy and revitalize abandoned territories, especially in industrial regions, as well as to develop innovative strategies (Grodach et al., 2017; Isaac, 2020; Pratt, 2021; Zhang & Xie, 2017). At the same time, emerging economies use their comparative advantage in cultural production costs over creating new knowledge (Evans, 2009). Therefore, it is essential to note that each country has a difference in creating cultural values and social contexts. It mainly depends on economic development, political stability, technological development, etc. (De Beukelaer, 2014). As a result, it is reasonable to predict that creative economy policies will work differently in these countries and with different results.

The research shows that the personality and motivation of founders significantly influence their ventures (O'Neil et al., 2020). The ecosystem and environment also play an important role (Landoni et al., 2019). However, previous studies have focused mainly on developed countries, and the extent to which these elements are essential for developing countries requires further study.

Thus, the following proposals were formulated:

Proposal 1 (first): Countries with developing markets have features of the development of creative industries.

Proposal 2 (second): Enterprises in the creative sector are forced to develop with limited resources.

This study identifies the main distinguishing features of the development of creative industries in a developing country like Kazakhstan. Our research contributes to the international literature on the creative industries by linking the opportunity-based view of SMEs to their survival in developing countries.

3. METHODOLOGY

Using a qualitative, interpretative, and inductive approach allowed this study to be exploratory while also focused on discovering, gaining insight from, and understanding the perspectives of the study participants (Merriam, 1998).

Kazakhstan is the largest country in Central Asia, and its economic development is

primarily driven by exporting raw materials, including oil. Nevertheless, the government has been paying greater attention to developing small businesses and entrepreneurship. Because of the lack of established companies and large manufacturers in the creative industry, design and fashion develop mainly through the efforts of small businesses and individual entrepreneurs.

According to experts and market participants, there are few examples of commercially successful projects in the creative industry in Kazakhstan; however, the industry's potential is underestimated for various reasons. Moreover, the creative sector of the economy is relatively new for Kazakhstan, and it is underdeveloped; nevertheless, it has a good export potential, which may contribute to forming a positive image of the country.

Kazakhstan is a relatively underexplored context compared with other similar contexts, such as the economies of Brazil, Russia, India, China, and South Africa. Like many other post-Soviet countries, Kazakhstan has repeatedly witnessed serious shocks: the collapse of the Soviet Union, high inflation, the transition to a floating exchange rate, and the 2007–2009 global financial and economic crisis. Before the financial crisis, the economy of Kazakhstan had been developing and showing promising signs. Still, the devaluation of the national currency, which has weakened the currency 80 times over the years of independence, hampered the country's growth. In addition, many challenges exist in the creative industries sector in Kazakhstan, including the lack of an ecosystem of great entrepreneurs and venture capitalists for new start-ups. Hence, this setting provides the range for understanding the post-penetration survival of creative industries, especially those that arise from such adverse conditions. This study explores how these organizations fostered their capacities despite challenging home environments and updated their core capabilities during and after the crisis. Given such scenarios, we believe it is time to explore the factors influencing creative industries' survival in Kazakhstan's emerging economy.

This study applied a qualitative design. We collected 34 semi-structured interviews to understand the concepts that reflect the key factors and barriers to the successful development of creative industries in a business survival environment. We followed inductive reasoning by concluding our observations (Eisenhardt et al., 2016; Mantere & Ketokivi, 2013). We follow an interpretive grounded theory approach by acknowledging interpretation in an enacted rather than purely objective world and privileging contextual understanding over a priory theory (induction) (Walsh et al., 2015). A qualitative thematic approach can gain valuable insights from key formats such as creative industry entrepreneurs (Doz, 2011). Moreover, there is insufficient qualitative research on managing creative industries in emerging markets (Birkinshaw et al., 2011).

We chose a targeted sampling technique (Welch et al., 2011) and listed 34 representatives of the creative industries who already function in the sector (Cavusgil & Knight, 2015). 34 participants participated in the interview, representing performing arts, design, craft, software, and computing systems. The survey was conducted between 2019-2020.

The main goal of this process is to draw conclusions and conduct checks within and between codes. As a tool for data analysis, we used the Nvivo 10 qualitative data analysis software (Sinkovics et al., 2008). During the analysis, the experts noted the following codes, most common among many respondents (Table 1). As patterns began to emerge

from the data, we combined codes into groups that formed categories. After the category was identified through pattern analysis (e.g., opportunities), it was further differentiated by breaking it into subcategories (e.g., marketing, technology, or management capabilities). After several rounds of iterations and comparisons between registers, we narrowed our focus to a core set of systematic enough capabilities to be acceptable. Thanks to this approach, we focused on the key opportunities that affect the survival of companies in this sector.

TABLE 1. Structured Codes and Definitions

Code	Definition
Financing	Financial constraints for new, innovative businesses have been the subject of much research. Financing constraints are typical among creative businesses, limiting their growth and jeopardizing their survival. The leading causes of the difficulty in raising external capital are a lack of internal cash flows and collateral, asymmetric information, and agency concerns (Block et al., 2018).
Human resources	Companies' success depends on their innovative capability (J. Henderson, 2003; Lado & Wilson, 1994; Wright et al., 1994). Creative human resources can enhance a firm's competitive advantage.
Technology	Technology is a body of knowledge that creates tools and extracts materials for implementing particular tasks to simplify our daily lives (Carpenter & Petersen, 2002). It is a powerful tool that changes people's intellectual environment and worldview (R. M. Henderson & Clark, 1990).
Networking	Networking improves management procedures and relationships while giving businesses a competitive edge (Attride-Stirling, 2001). Networks can exist within a company or between companies, and the flow or sharing of products, services, or resources, as well as the relationships between the companies, can vary greatly.
Barriers	Maintaining a business is seldom subject to the intentions that move the expected business vision (Staniewski & Awruk, 2015). Most of the time, the entrepreneur's decision results from a combination of factors and hurdles. Unfortunately, research shows that many entrepreneurs, particularly university graduates planning to start a firm, believe there are several challenges and impediments to maintaining a business and establishing one.
Note: Compiled by the author	

4. FINDINGS AND DISCUSSION

Financing of creative industries in Kazakhstan. In many countries, inadequate access to external financing seriously hinders entrepreneurship development (Boix et al., 2013). First, insufficient financial resources prevent the overall progress of entrepreneurship because, at the initial stage, every business is vulnerable to financial restrictions and heavily relies on money (Ajide, 2021). Several scholars believe that finance is an important component that should be considered when allocating resources for entrepreneurial activities. (Goel & Madan, 2019).

To a high degree, financial exclusion may pose two possible economic hazards.

Financial exclusion can stifle business growth since financially disadvantaged people cannot expand their firms and achieve maximum growth. In addition, a high rate of unemployment and poverty can limit economic potential. As a result, encouraging financial inclusion in a country can directly respond to every entrepreneur's financial insecurity. Through monetary inclusion, essential financial aid can be supplied to vulnerable groups, such as micro-enterprises, poor farmers, and low-income groups. Financial inclusion programs ideally provide equal support to all economic members (Si et al., 2019).

Although Howkins (2018) describes the creative economy as a concept that depicts the economic repercussions of an idea or intangible content rather than physical capital, all creative ideas ultimately rely on physical capital to be realized. With considerable upfront capital, the transfer from intellectual substance to execution and realization is possible in the creative industries. In Kazakhstan, more financing is needed to develop creative industries.

Regarding funding for the industry, the primary funding source is the industry representatives. Interestingly, some of the respondents use their family budget or even accept help from parents:

"I cannot hide financial assistance from my parents. Everything is so in any entrepreneurial activity; first, you need to invest; only then can there be profit."

As for state support, only 6% of respondents received funding from the state. This indicates low involvement of government agencies in the development and support of creative industries:

"In principle, the state finances. The government invests in creativity, art, and finances. So, I think there is no problem with that. Moreover, many grants are allocated for creative specialties in our country."

However, there are times when government funding is ineffective.

The state holds a tender for creative projects. What will win the tender—this will be won by the campaign that offered the lowest price. How can there be a low price on creativity? How can art be appreciated in such a way? Therefore, it turns out that the artists have to work on their primary job and hobby—art—only in their free time because they have to feed their families. Many people break down and quit. Especially the artists, they are simply begging.

Additionally, only 5% of the representatives of this area received sponsorship. Insufficiently mature perception of the creative industry as an independent industry and the lack of confidence of sponsors in return on investment in an underexplored area are the main factors of low sponsorship.

In theory, finance is one of the business essentials that can help entrepreneurs be more effective and aligned with economic progress. The potential of Kazakhstan is immense, and it has at its disposal various levels of opportunities. Its burgeoning youth population and fast urbanization have attracted a slew of investors. Furthermore, Kazakhstan's GDP growth is among the highest in the world, even though it started from a low point. On the other hand, exchange rate volatility and commodity price decreases have caused uncertainty in the region. All these factors contribute to the complexity of doing business in Kazakhstan, particularly in the creative sector. The economy's instability leads existing companies in the creative sector to declare bankruptcy, which is already a

challenging financial situation.

Human resources. Creative individuals are at the center of venture creation in the creative industry. According to the existing literature, creative personnel use their artistic and creative sensibility to identify opportunities and provide creative products, services, or experiences. Creative entrepreneurs are those who bring together resources to exploit these opportunities as a business. The staff's talent and behavior are crucial to a creative business's success. Furthermore, research has revealed that creative professionals are enthusiastic about their work and ready to demonstrate their creativity and artistic ability.

Nowadays, in the creative sector, personal qualities are preferred. For the creative sector, it is not so much a degree of education that is important but the availability of skills such as entrepreneurship and creativity, which cannot be obtained just from a university or college. Short training courses or online platforms can also provide education and skills. Journalists confirm the dependence on the success of a creative company:

"We have a big staffing problem. However, we still carefully select personnel. We often choose creative people ready to change and develop with us. Lack of education for us is not the main obstacle in personnel selection. We can teach them everything they need to know."

An analogous situation applies to the IT sector, which is dominant in terms of the quality of personnel:

"In our industry, it is very important to understand technologies and new directions. The relevance and timeliness of using new technologies are the engines of our business. They don't teach this at the university. That is why we teach them ourselves."

Technological development of creative industries. Technology is integral to the development of the creative economy. In the creative professions, technology has become routine and pervasive. It is frequently utilized to stimulate creativity directly. It also adds to the life and culture of society as a whole, as Abdulla (2018) puts it, and defines ways to overcome hurdles or provide solutions to specific problems. The confluence of the Internet, computing, telecommunications, and television technologies, as well as the potential they provide for digital storage, big data, linked data, manipulation, transmission, and digital media reproduction, has had a significant impact on the creative industries (Abbasi et al., 2017).

In Kazakhstan, there is a lag in the development of technologies in many industries. Representatives of the IT sector noted that the lack of infrastructure and financing negatively affects the development of the sector in the region:

"In Kazakhstan, of course, there is a technological lag. Given that today all technologies are available, everything depends only on the capabilities of the company itself and on its financing. As such, it is no barrier to accessing technology. The same technologies are available to us as in advanced countries. The possibilities of their use are simply limited. However, it is not cost-effective even if you bring such expensive equipment. Our sales market is tiny. The population of Kazakhstan, as you know, is only 18 million people."

Networking. The development of creative industries and information and communication technologies are interlinked. Combining creative industries and digital technologies creates jobs, opportunities, services, and products that benefit the economy.

The creative economic notion emerges when innovation is linked with various forms of creativity. The creative industries notion is used in policy texts to indicate added value, expanded market, and new jobs—all of which are critical foundations for a competitive and rising economy. Policymakers emphasize the importance of innovation, creativity, and independent thinking in the global economy.

The organization in the knowledge economy is fundamental to the discussion about the ascent of the "creative class" (Florida, 2002). Creators became standard in the mid-2000s through the philosophical headway of middle-class business, through a method of creation because of inventiveness. Networks were quickly marketed as the driving force behind job search techniques in this "new" economy when the notion of the "creative class" became widely embraced, and its relevance was heightened by the individualization and privatization of employment (Gandini, 2016). In this context, when the entrepreneurial work style is taken as the basis for building a creative career, research has shown that the development of social relations removes the critical functions associated with knowledge transfer, reputation building, and learning. Behavioral standards and the development of interpersonal trust define the urban creative "scene". As a result, the creative activity must be embedded in this "magma" of relationships and, as a result, relationships must be developed as a major aspect of their work.

A textbook example of networking comes from freelancers working in the blurred territory of the creative and technological economy. Freelancers often describe their socialization methods as a form of business interaction. For example, a freelance musician recalls that:

"Networking is more important to me today than other resources. Cooperation allows me to find clients and suppliers and discover the latest trends and directions of development in my field."

Others, who are typically involved in more creative and artistic endeavors, describe this type of collaboration in more idealistic terms, referring to forming relationships with like-minded people as a form of community exchange centered on friendship, similar to the dynamics described earlier. A designer in her early 30s explains:

"To develop networking, you need to be confident in your activities. You need to develop a network and create business and personal relationships when working with creative people. That is, you need to make your name. To do this, you need to start talking with people. You need to get along with people and work with people you like."

Workers must take full responsibility for their jobs and individually bear the risks of their independent careers. This context is increasingly prevalent as a casual and homeless labor market emerges. It is also linked to the rise of digital technology and social media, which have brought (at least technically) the ability to get work done anywhere, anytime, with an internet connection and have driven creative workers outside offices. According to a conductor:

"Since we work for the state-owned conservatory, we are financed by the state. Nevertheless, we should not just sit and do the job we are told. We must take responsibility for ourselves. So, last year I attracted sponsorship money through networking, and we could go to Italy for training. In addition, the networking allowed me to invite eminent composers from Russia to the master class. The headers did not tell me to do this, but I took the initiative. With the help of Facebook, I was able to do all this. I

just wrote to them on Facebook and received an answer. Thanks for networking."

Networking allows you to find the connections you want and plays a role considered typical of the creative economy.

Barriers. In developing countries, it has been discovered that a creative economy fosters economic development by allowing new entrepreneurs to enter the market and grow their businesses. Extraction rises in value-added items such as recording and copyright in the creative sector, which do not recirculate in developing economies. However, the development trajectories in developing countries differ from countries with developed creative economies.

Based on interviews with 34 different founders, we identified several mechanisms that founders pursue to overcome the barriers encountered in their identity work. These mechanisms depend on the nature of the market, their reliance on digital technologies, and the founders' perceived credibility. In addition to the financial barriers identified earlier, there are also barriers associated with human resources. As is commonly known, creative people rarely have the skills of a businessman or an investor. Therefore, there is an acute problem in the lack of relevant personnel in creative industries (e.g., marketer or an accountant) those for operations-related tasks that could be carried out free of charge on the created business sites. The most cited barrier is the lack of qualified specialists. As most respondents stated, the absence of personnel who know what to do and how to do what is necessary for the creative industry curtails its development. Thus, it is possible to reduce the threat of a shortage of specialists with professional business education and education in high technologies.

People of retirement age continue to work in some areas of local activity. As the conductor notes:

"In my team, many people with more than 30 years of experience are already retired, but there is no replacement for them. We ask them to stay until a replacement is found. We have now found a way to teach and conduct classes. After training, we sign a contract with them for a year or two."

This barrier creates another demotivating factor which is low wages. Additionally, the local government is not interested in investing in the creative industry. According to the art director:

"Artists in our country do not attract the necessary attention. Most of the representatives of the state sector are far from art. When you go to a meeting to ask for sponsorship, they are surprised that we have such a team in the region. Then you realize that there is no point in talking further. It is very sad."

This barrier decreases the demand for domestic products and services. Providing highly qualitative products and services helps deny the local consumers' trust. The peculiarity of creative industries lies in their isolation of the human factor; therefore, the intellectual potential and creative abilities are far from always appreciated by the audience at the proper level. Therefore, the demand for innovative products is relatively narrow, and it is not easy to attract new customers.

In general, the creative industry is a relatively new term for locals in Kazakhstan. Because of the cultural characteristics, mentality, and adherence of the Kazakh society to traditional views, industry representatives note the immaturity of the industry's perception as a separate branch of the economy. As a jeweler with 30 years of experience,

note:

"We started as students 30 years ago. At that time, it was unnecessary to say that this was some entrepreneurial activity or even a creative industry. Then it was just a profession. It's great that we are now singled out in a certain category, allowing us to attract more attention to our work."

In Kazakhstan, there is still no program aimed at developing the creative sector of the economy. Nevertheless, the country has adopted the Strategy for the Development of the Creative Industries, which provides various directions for improving the activities of this industry.

"We have to rely on ourselves entirely. We are not being celebrated in any way now. We cannot even win in some contests because the jury prefers production to mass production. Moreover, our small-scale - individual production is not evaluated in any way."

Moreover, there is no accounting for enterprises in the creative industry: it is challenging to calculate what share of GDP these industries occupy, what is the employment of people, as well as the sector's income, primarily due to the large percentage of the shadow economy. In this regard, presumably, it can be said that the state pays insufficient attention to this area in Kazakhstan. Influencer told:

"My profession is not reflected anywhere. I don't pay taxes; I don't report anywhere. I have a YouTube channel; it brings me income. I assigned it to my mother. She has her production, according to which she pays taxes. Our digital technologies do not conduct statistics in any way."

In general, the development of the creative industries in Kazakhstan can be viewed as a bricolage (Baker & Nelson, 2005). When the resources are limited, representatives of the creative industries are more likely to conduct the study and make use of all available resources to capitalize on the most promising prospect.

The stage of development of creative industries In Kazakhstan is at an embryonic level and requires the state's active participation. The critical success factor is the active involvement of talents and creative people, the local creative enterprises and businesses in the socio-economic development of the regions through the provision of appropriate powers, participation in the process of making recommendations and developing programs, and considering the increase in personal responsibility. At the same time, at the regional level, it is necessary to gradually move to a decentralized economy, taking into account each region's advantages, opportunities, and threats. In the regions, it is important to activate the work of creative clusters, which will allow the formation of training centers and support centers for representatives of the creative sector.

While there is no systemic support for creative industries, at the same time, large-scale global competition for creative and entrepreneurial personnel is growing in Kazakhstan. According to the respondents, the creative industries are not supported by the state on a long-term basis. The lack of development programs and funding mechanisms hinders the sector's development. Moreover, the lack of support is also confirmed by the reluctance to invest in creative industries due to the high risk or low return compared to the extractive industries. In addition, developing creative industries in emerging markets requires support from the state through development and training programs, improving funding mechanisms, and preparing the appropriate infrastructure.

5. CONCLUSIONS

This research contributes to constructing a theory of features of the development of creative industries in Kazakhstan. The activity of creative industries in conditions of limited resources and the presence of many barriers to development and success characterizes Kazakhstan. The dynamic changes and uncertainty inherent in such an environment expose people to lessons that may apply to various fields, such as project management and entrepreneurship. Specifically, this study highlighted the significance of mentorship and inspiration in creative industries in emerging markets.

In theory, this research adds to the literature on both creative sectors and SMEs. In practice, such businesses are typical for creative industries. Educational institutions have a lot to offer in terms of training for the creative sector and individuals interested in learning a variety of entrepreneurial, project, and strategic management skills to work in the creative industries.

At the political level, proper funding and grant schemes should reflect the collaborative character of work. At the same time, essential entrepreneurial skills should be required. Strategic thinking should be encouraged when creating projects and innovations. Allocating resources for mentoring and coaching programs to foster the development of new and existing networks can also be emphasized.

In Kazakhstan, there is a significant technological backlog of creative industries. Considering that all technologies are available today, everything depends only on the capabilities of the company itself and its financing. Even though in the context of globalization, the same technologies are available as in advanced countries, many Kazakhstani creative sector representatives do not have the resources to acquire new technologies. Their uses are simply limited. It should be noted that another factor is the unprofitability of such technology since the Kazakhstan market is tiny since the population of the country is only 18 million people.

The development of globalization processes in the economy allowed Kazakhstan to become an integral part. Many respondents note that there are currently no barriers to cooperation. Especially in conditions where networks are presented as the driving force behind job search methods in this “new” economy, when the concept of “creative class” has become widespread, and its relevance has increased due to the individualization of employment. In this context, when an entrepreneurial style of work is taken as the basis for building a creative career, studies have shown that the development of social relations removes the most important functions associated with transferring knowledge, reputation building, and learning.

An example of networking comes from freelancers working in the blurry territory of the creative and technology economy. Freelancers often describe their socialization practices as a form of business interaction. For example, an independent musician recalls that networking is more important than other resources today. Cooperation allows one to find customers and suppliers and learn about the latest trends and development directions in a particular area. Others, who are usually involved in more creative and artistic endeavours, describe this collaboration in more idealistic terms. They refer to forming relationships with like-minded people as a form of friendship-based social exchange.

As a result of the analysis, it was found that the development of creative industries in Kazakhstan can be considered a bricolage. When resources are limited, representatives of the creative industries more often conduct research and use all available resources. As a result of the synergy of resources and strategic focus, creative industries are more likely to succeed in their endeavors. Consequently, the resource advantage of these entrepreneurs may be weakened by a lack of strategic interaction.

Future research might look into how collaborative bricolage is used in the creative industries and how it could benefit other industries. This research can also shed light on how people are developing creative industries in emerging markets that are characterized by resource constraints and barriers. A longer-term perspective on relationships and balancing strategic intents with mentoring abilities can also improve project management, marketing management, and other specialized management situations.

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AUTHOR BIOGRAPHIES

***Aziza Zhuparova** – PhD, Al-Farabi Kazakh National University, Almaty, Kazakhstan. Email: aziza.zhuparova@gmail.com, ORCID ID: https://orcid.org/0000-0002-5787-760X

Ryszard Pukala - Bronislaw Markiewicz State University of Technology and Economics, Jarosław, Poland. Email: ryszard.pukala@interia.pl, ORCID ID: https://orcid.org/0000-0002-2943-8482

Raigul Doszhan - PhD, Al-Farabi Kazakh National University, Almaty, Kazakhstan. Email: rdd2011@mail.ru, ORCID ID: https://orcid.org/0000-0001-7480-3568

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