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The potential of youth and older people's participation in the development of creative industries in Kazakhstan and the directions of its activation

Abstract

Object: To assess the potential for diversification of socio-economic participation of youth and older people in the development of creative industries of the Republic of Kazakhstan.

Methods: The research uses methods of indirect selective sociological survey with the allocation of individual focus groups, graphical interpretation of the answers received and their comparative analysis.

Findings: The object of the study were the largest cities of Kazakhstan. Four focus groups were surveyed: youth, the elderly, representatives of creative industries, and government agencies. A set of specialized state support measures has been proposed to enhance the socio-economic potential of young people and the elderly.

Conclusions: The degree of involvement of young people and the elderly in production and consumption has an impact on the diversification of creative industries. It was revealed that young people are actively involved in the production and consumption of creative products. The study found that older adults are involved in producing and consuming creative industry products, though their participation in production is notably low. Despite having significant potential and past creative experience, their current involvement is limited.

Additional information: Presented in this article the study was carried out within the framework of a project funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant № . AP14871023).

Keywords: creative industries, socio-economic potential, youth, elderly, creative economy, inclusion, government support, associations of creative entrepreneurs, sociological survey.

Introduction

Achieving sustainable economic development requires a reduction in resource consumption. The basis for reorienting the economy towards development lies in the development of low-resource-consuming sectors particularly the creative industries. Additionally, the potential of younger and older individuals should

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be harnessed through the involvement of creative entrepreneurs, state support, and the formation of associations.

Within the context of this publication, we are pleased to present a study conducted to assess the utilization of youth and elder potential, barriers, and measures for state and association support in promoting the inclusion of youth and seniors in the creative industry in Kazakhstan. The authors conducted research based on a survey. In the beginning let's examine official statistics to understand the significance, position, and level of development of the creative industries in Kazakhstan. A review of Kazakhstan's Gross Domestic Product (GDP) by industry reveals that the majority of the GDP is generated by industries that account for less than one-third of the total product produced. Unfortunately the branches of the creative industry, despite their significant potential for minimal resource consumption, contribute a relatively smaller proportion to the country's GDP. These include information and communication activities (2.2 %), professional, scientific, and technical activities (3.3 %), and arts, entertainment, and recreation (0.9 %) (Bureau of National Statistics, 2022). Studying data on regions of the domestic economy allowed us to discover that the largest volumes of creative services in Kazakhstan are provided in the cities of Almaty and Astana, with the Karaganda region following by a significant margin. Other regions also contribute significantly to the overall volume of creative services.

Half of those employed in arts, entertainment and recreation have higher or graduate degrees, while almost half completed vocational programs (Bureau of National Statistics, 2022).

According to the statistics on employees by type of economic activity, the rate of permanent employment in the creative industries is higher, with indicators close to 100 %. This suggests that people engaged in intellectual and creative work have a better chance of a stable job compared to those in other fields.

As far as we know among cultural institutions, libraries are the most popular, followed by cinemas, museums, concert halls, and theaters. However, there was a decrease in the number of visitors in 2020 due to restrictions on movement caused by the pandemic (Bureau of National Statistics, 2022).

A prominent place among performing arts organizations in Kazakhstan is held by traditional musical ensembles and amateur groups that are based in various regions of the country. These performers not only perform at concerts and festivals but also on television and radio, and they also appear in the unique setting of the "toy industry", which has emerged as one of the most lucrative sectors of show business in Kazakhstan.

Statistical evidence indicates that the following types of organizations are most common among those operating in the creative industries of Kazakhstan:

- Those based in urban areas outnumber those based in rural areas.
- Organizations with higher levels of specialization are more frequent.
- Young professionals predominate over older workers, especially in the information technology (IT) sector.
- Most employees have stable, full-time positions.
- Citizens of the cities of Almaty and Astana are over-represented, as these cities possess the potential to form creative clusters and IT hubs.

The analysis presented in this paper, based on the results of a sociological survey, aims to address a gap in understanding the factors that contribute to the development of the creative industries in Kazakhstan, and to explore the potential of different segments of the population in this field.

The study's working hypothesis is to identify age-specific preferences and skills among the population that are relevant to the growth of various sectors within the creative industries.

Literature Review

In the methodology of this study, the authors divided age-related focus groups into subgroups. This approach is widely used and quite convenient. Therefore, Russian researchers conducted a sociological survey of elderly people. They divided them into three age groups: 55–64 years old, 65–74 years old and 75 years and older (Ivankina et al., 2016). This distinction has allowed us to identify different behavioral patterns among older people and to better understand their needs as consumers of ICT services.

For ease of analysis, the responses were assigned numerical values from 1 to 5. This allows for the weighting of different responses and provides a more comprehensive understanding of the respondents' assessments of the events under consideration. A common approach of using response options such as "rather yes" and "rather no" was also employed, which helps to avoid binary "yes/no" responses and identify posi-

tions where the respondent leans towards a positive or negative response, while still maintaining some level of uncertainty in their feelings (Brenner, 2020).

In the study, the author was guided by the hypothesis that cooperation between generations enhances opportunities for individuals of different ages (Khusainova et al., 2023). The author, Tukino, supported this hypothesis by investigating the significance of intergenerational collaboration in achieving sustainable development objectives (Tukino, 2023).

Gurieva, L. and Dzhioev A. conducted a study on the labor potential of older people based on the results of a survey conducted by the Russian Statistical Authority as well as data obtained through the “resume test” method (Gurieva et al., 2024).

In OECD countries, sociological surveys of the elderly are conducted using their own methodology, which allows for cross-country comparisons and factor analysis of self-assessment data on the wellbeing of the elderly (Kutubaeva, 2019).

Smoleva, E.O., published the results of a study on the problems of including socially vulnerable segments of the population in the labor market by identifying internal (personal) and external barriers (Smoleva, 2018). Smoleva, E.O., conducted a sociological survey among four focus groups, specifically, the elderly and young people.

Methods

As part of our sociological research, we conducted four focus group interviews:

- 1) with young people (14–35 years old);
- 2) with elderly people (60 years and older);
- 3) with representatives of the creative industries;
- 4) with government agencies.

We divided the respondents into these groups in order to gain insight into the perspectives of different groups: the creatives themselves, their interactions with state institutions, the younger and older generations, and the government's role in supporting the creative economy.

The questions in our questionnaire were designed to elicit the participants' opinions on the current state of the creative economy, the measures taken by the government to support it, the importance of private sector involvement, the level of collaboration between industry participants, and any barriers or obstacles that prevent the sector from thriving.

Results

The first focus group consisted of 100 young people between the ages of 14 and 35, who were studying in secondary, higher or postgraduate educational institutions or had completed their studies. The main criterion for inclusion was age, which is officially adopted in the Republic of Kazakhstan.

The first question aimed to define a narrower range of ages among respondents, divided into four groups. This allowed us to better understand the specific age distribution of the respondents and, consequently, the level of development of their personal and professional characteristics and ideological maturity.

Due to the impossibility of conducting a longitudinal study as part of this research project, which would involve taking into account changes in understanding and assessing phenomena over time, we can only assume that there will be a dynamic in the views of the young people surveyed as they grow older. The principle of continuity implies changes in their level of involvement in economically active activities and their skill level as well. The majority of respondents were young adults aged 19 to 23 years old (70 %), with a quarter being young adults aged 14 to 18 years old (25 %). Smaller proportions included young adults aged 24 to 28 (4 %) and 28 to 35 (1 %).

Thus young people were asked to assess their potential for participation in Kazakhstan's economy. The diagram shows that young people recognize themselves as both producers and consumers of creative products and are inclined to believe that their potential will be used in the creative industry (Figure 1).

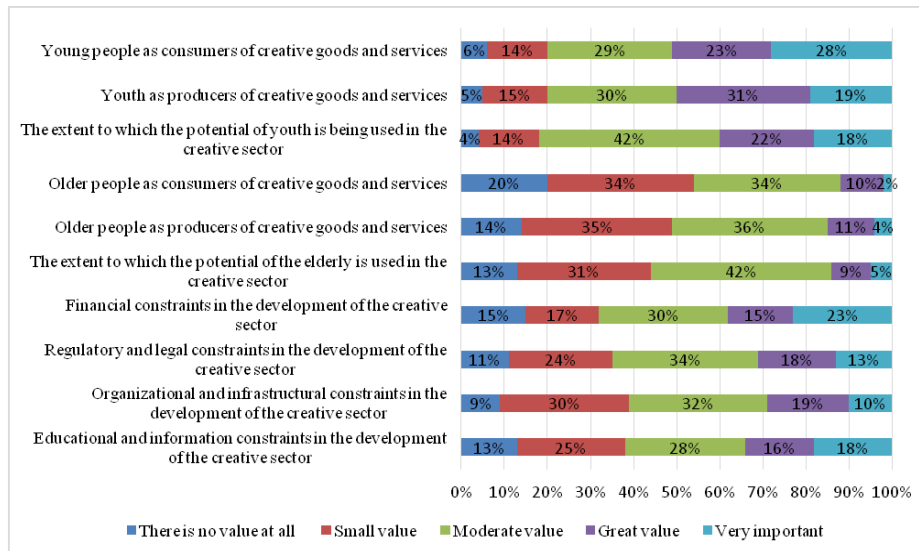


Figure 1. Assessment by young people of the degree of use of the potential of young and elderly people, as well as the importance of restrictions in the creative economy in Kazakhstan

Note — Compiled by the authors based on the results of the survey

Our data allows us to discover that young people tend to view themselves as the dominant force in creative industries such as IT, which requires skills using software and devices. This is positive, as it shows that most young people don't completely dismiss older people. Fortunately, only a small percentage (10 %) of respondents attach great significance to older people across all three aspects.

The next block of questions in our questionnaire will allow us to identify an assessment of the significance of limiting factors and barriers in the development of creative industries in Kazakhstan. We found that the responses from young people were quite diverse, with some boys and girls placing great importance on certain barriers, it turned out that lack of financial resources, flaws in the regulatory framework, organizational and infrastructure restrictions, educational and information restrictions, as it seems to us financial barriers scaring children more than others. However, there were also those who did not see any obstacles to progress in creative industries, these respondents accounted for 9 % or more of all respondents. A majority of respondents attributed small and moderate levels of importance to these barriers, suggesting that young people have a more positive outlook than other generations and that internal rather than external factors are more significant in realizing their potential for active participation in the creative industries. That is, if talent and a desire to engage in creative activities are manifested, there is little that can stop people.

The chart below (Figure 2) illustrates the high level of interest among young people in creative industries in Kazakhstan. Approximately one-fifth (20 %) of children already have their own businesses or work for creative companies. Of these, 7 % have their own business and 13 % work for a company. Approximately half (45 %) of respondents indicated a desire to start a business in the future. Additionally, 12 % indicated an interest in working for a creative firm. Only 20 % of young people did not see themselves pursuing a career in this field.

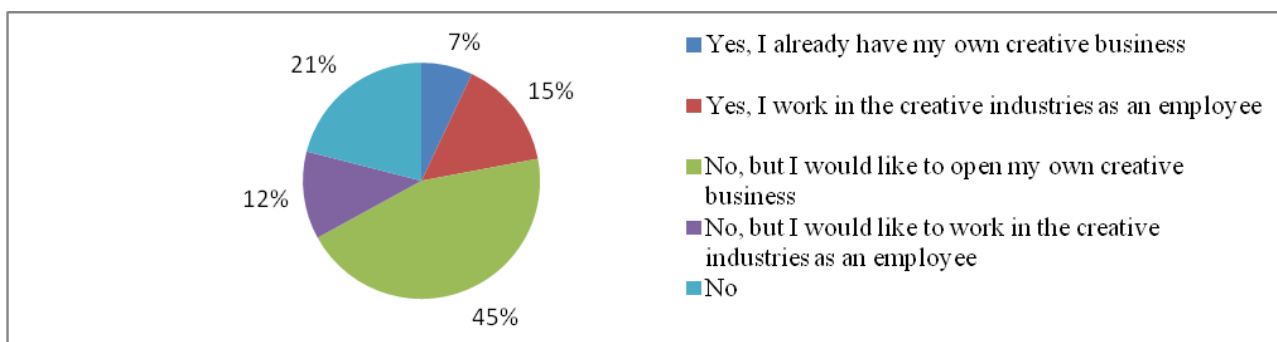


Figure 2. The connection between current economic activities of young people and creative industries

Note — Compiled by the authors based on the results of the survey

Figure 3 illustrates the structure of responses to questions regarding current and potential involvement in creative activities among young people. Based on this diagram, we can draw a portrait of today's young people in the country, with most respondents providing positive responses. In particular, young people prefer participating in creative leisure activities, as 59 % of respondents agreed, and 25 % were leaning towards a positive response. Two-thirds of young people demonstrated a high level of willingness to change the location of their activities. Young people are also actively consuming creative content, visiting creative spaces in their cities, and perceiving their cities as comfortable enough to reside in them.

Young people clearly express a high willingness to improve their skills in the field of creative activities (52 % responded “yes”, 25 % — “more yes than no”), and link their future with creative industries (61 % responded yes, 24 % more yes than not). The actual involvement of creative industries in the production of goods and services is less significant, but nevertheless, exactly half of the respondents responded positively. This means, firstly, that young people are active in the creative field and there are jobs for them in creative professions and niches. Secondly, creative industries attract young people looking for a source of income, a job and a way to apply their talents and express themselves.

40 % of young people surveyed have already had experience in the creative industries. Only one fifth of respondents reported no experience in this field, which is a small number considering their young age and lack of experience in other areas of economic activity.

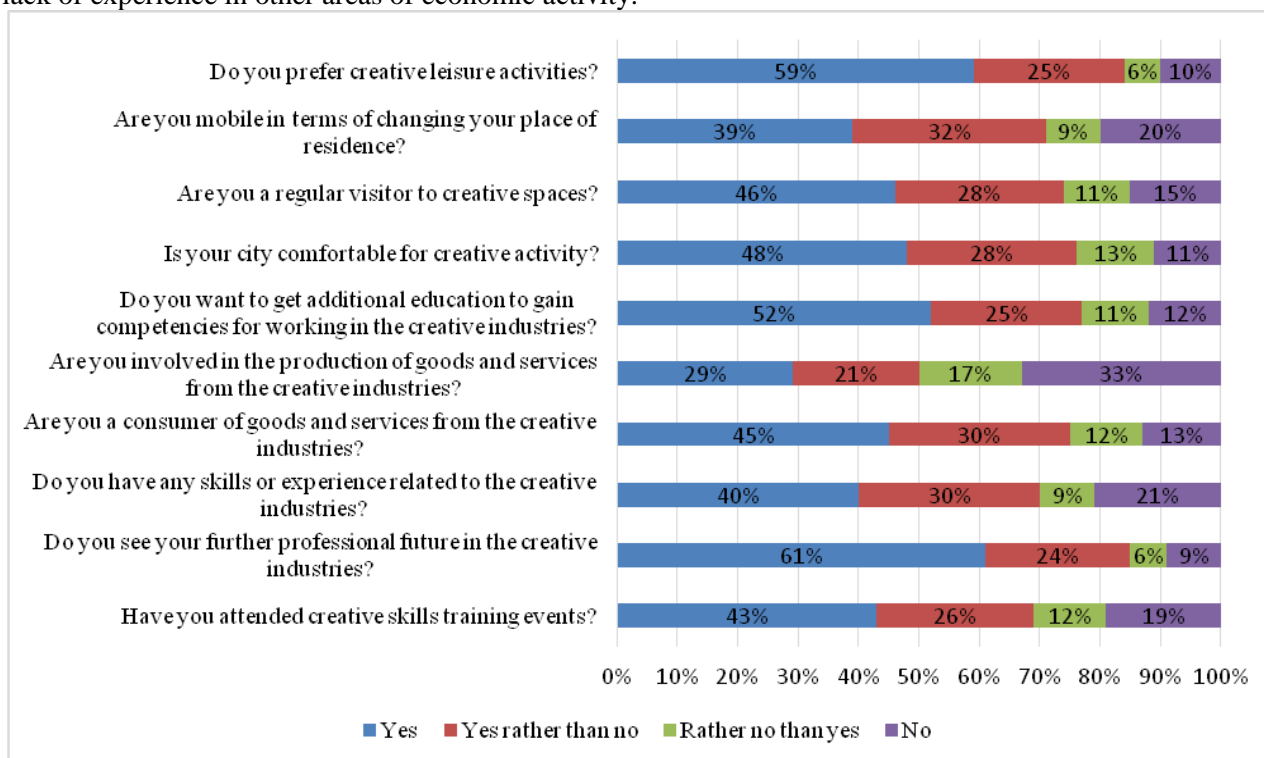


Figure 3. Young people's assessment of their involvement in creative activities

Note — Compiled by the authors based on the results of the survey

When asked about the assessment of support for the development of creative industries, young people admitted that government agencies helped to a greater extent than did nothing. However, in this regard, associations of creative entrepreneurs are more effective than the state. A tenth of young people see no support for creative entrepreneurs.

The second focus group in this sociological study was composed of one hundred people over the age of sixty. The group was divided into four age categories: one third were between 60 and 65 (31 %), another third was 66–70 (31 %). Twenty-eight percent were aged 71–75, and ten percent were from the oldest generation, 76 and older.

In principle, there are not many people aged 76 years and older, due to the relatively low average life expectancy. The average life expectancy for men in Kazakhstan is 70 years, for women — 77.6 years, and in general — 74 years. According to this indicator, Kazakhstan ranks 89th in the world in terms of life expectancy, behind many developing countries (WHO, 2020).

In Kazakhstan, the official retirement age is 63 for men and 61 for women. Therefore, the first group of individuals aged 60 to 65 years comprises both working-age people and pensioners. Other age groups within the elderly population are predominantly composed of pensioners, although this does not necessarily indicate that these individuals have fully retired. This is because some people continue to work, as well as due to imperfections in the country's pension system, which can result in pensioners not receiving enough funds to maintain a decent standard of living (Tolymbek, 2022).

According to the responses we received 89 % of the respondents reported that they were retired. 3 % indicated that they worked in a field unrelated to the creative industries. So, the data shows a relatively low level of involvement among pensioners in creative industries or economically active activities in general. Much to our regret experts identify several factors that contribute to reduced life expectancy and reduced participation of older people in society in Kazakhstan (Panzabekova et al., 2020).

We found out that the assessment of the state of the creative economy and its development factors, as perceived by elder people, differs from that of young people. When assessing the potential for youth participation in the creative industries, elder respondents tended to give positive responses (Figure 4). We found that elder individuals tend to believe that younger people actively consume creative products and they are almost equally likely to agree that younger people produce creative goods and services. However, it seems that their assessment of how young people use their potential in the creative field is less pronounced. For example, we can see that 20 percent of older individuals admitted that young people do not participate in the creative sector, and 17 percent said that young people were not highly attracted to it. Based on these data, we can conclude that elder individuals do not see much potential for young people in the creative industry and their involvement in it should be encouraged.

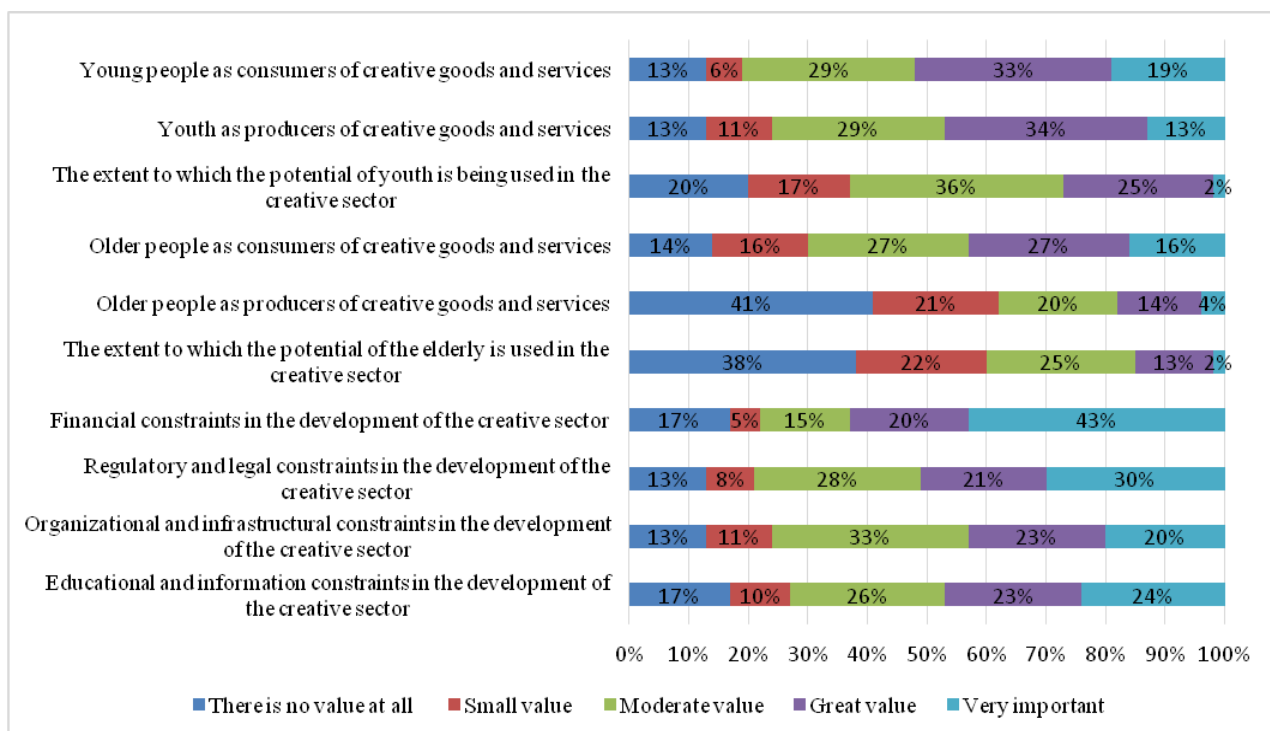


Figure 4. Assessment by the elderly of the degree of use of the potential of young and elderly people, as well as the importance of restrictions in the creative economy in Kazakhstan

Note — Compiled by the authors based on the results of the survey

On the issue of older people's participation in creative industries, most older generations themselves hold a negative opinion on this matter. With regard to their participation in the production of creative products, 41 % indicated no value, and 21 % little value. Although the elderly partially acknowledge that they do participate in production, to some extent more responses show that they consume creative products. In general, the potential of the elderly to contribute to the creative sector in their country is not fully realized, according to most of them.

Compared to younger people, older adults place more emphasis on barriers to the growth of creative industries. Older people, in general, tend to be more cautious about the significance of obstacles to various ac-

tivities. This is due, in part, to the fact that older individuals, compared to younger ones, have more experience in overcoming obstacles and assessing risks (Tupasela et al., 2023). Among the limiting factors, the lack of financial resources is given the greatest importance.

When asked about their current attitudes towards creative industries, 87 % of older respondents expressed a strongly negative opinion. Given that many of these respondents are retired, this response is understandable. However, few people were willing to pursue creative work, either now or in the future. A certain degree of apathy is evident in their responses. Nevertheless, the number of older people is not large, and, due to the increasing life expectancy in Kazakhstan, survey data suggest that the participation of older adults in active activities, particularly in creative fields, is relatively low. This supports the commonly held hypothesis regarding the low activity level among older individuals (Bandini et al., 2021).

According to the following chart (Figure 5), older people prefer creative leisure activities (45 % answered “yes”, 36 % — “rather yes than no”), consider their city to be comfortable for creative activities (more than half answered “yes” and 23 % answered “rather yes” than “no”), consume goods and services from creative industries (39 % responded “yes” while 21 % said “rather yes”), and regularly visit creative spaces such as theaters, concert venues, and museums (36 answered “yes”). This to some extent characterizes the elderly involvement in the creative sector positively. However, their leisure activities are still lower than those of young people, which is consistent with Teixeira's study, which measured the leisure activity index of older adults (Teixeira, 2022).

If, in terms of leisure activities, elderly people express involvement in creative industries, then, in terms of active participation, their answers are mostly negative. 78 % don't participate at all in the production of creative products; 55 % don't see prospects for themselves in creative industries in the future; 51 % didn't attend creative skills training events; and 49 % aren't ready to change their place of residence. At the same time, 30 % of elderly people are interested in obtaining additional competencies in creative industries. Programs within higher education institutions, such as Silver University, as well as various courses and clubs offered within the framework of active longevity centers may be in demand for this group.

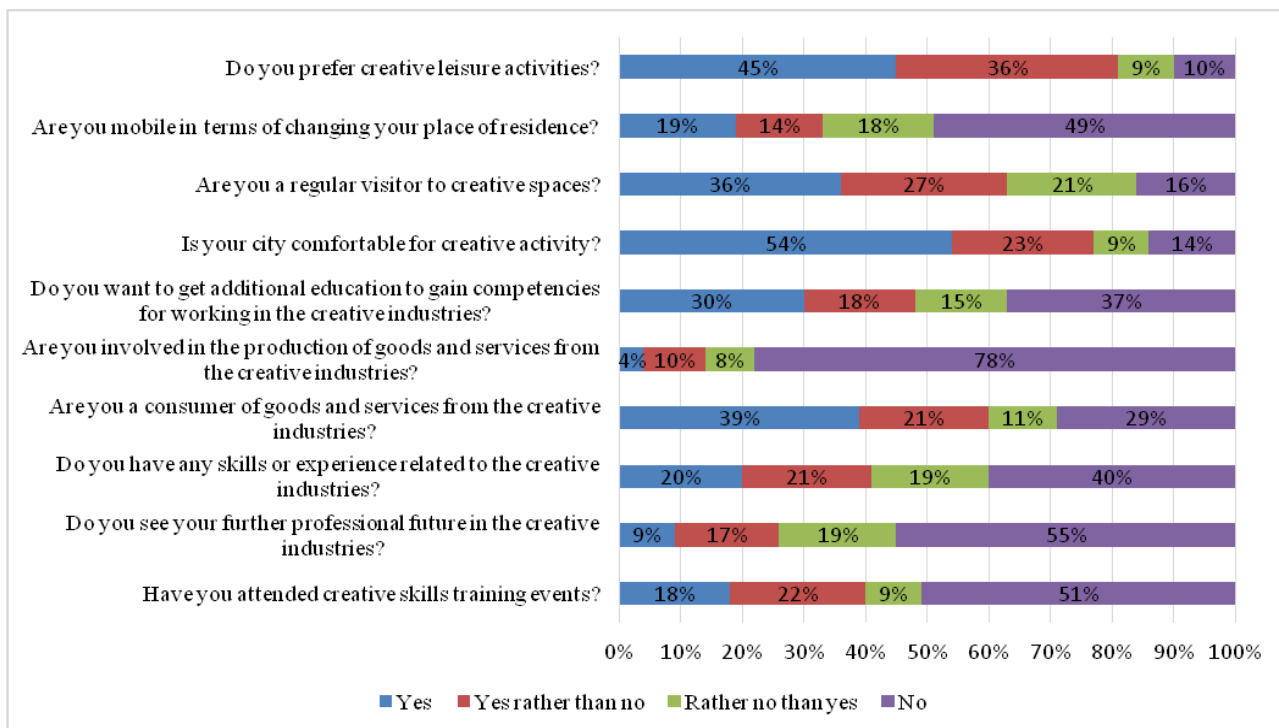


Figure 5. Elder respondents' assessment of their participation in creative activities

Note — Compiled by the authors based on the results of the survey

The results of the survey showed that older people generally equally assess support for the development of creative industries from both the state and associations. Most respondents are somewhat doubtful that support will be provided, while a quarter do not see any assistance to creative entrepreneurs from these institutions. Only 9 % are confident that such support will materialize.

Elder people tend to be more critical in their assessment of the effectiveness of government institutions, compared to younger people, who are more confident in the government's work and are also more prepared for active and proactive action (Oecd-ilibrary, 2021).

The third focus group included representatives from the creative industries.

The survey results showed that creative entrepreneurs were not satisfied with the level of participation of older people in the creation and consumption of creative products and the use of their potential. It was obvious that the passive attitude of the elderly forced creative entrepreneurs to focus on other age groups for their activities. Creative entrepreneurship primarily has a commercial purpose, but solving the problems of including the elderly, as well as other social issues, is considered a “failure” of the market mechanism and rather the responsibility of the government. According to a study by Guido, G., Ugolini, M.M., and Sestino, A., increasing the level of involvement of older adults in economically active activities requires changes in business strategies, technological innovations by entrepreneurs, and lifestyle changes and spending by the elderly themselves (Guido et al., 2022).

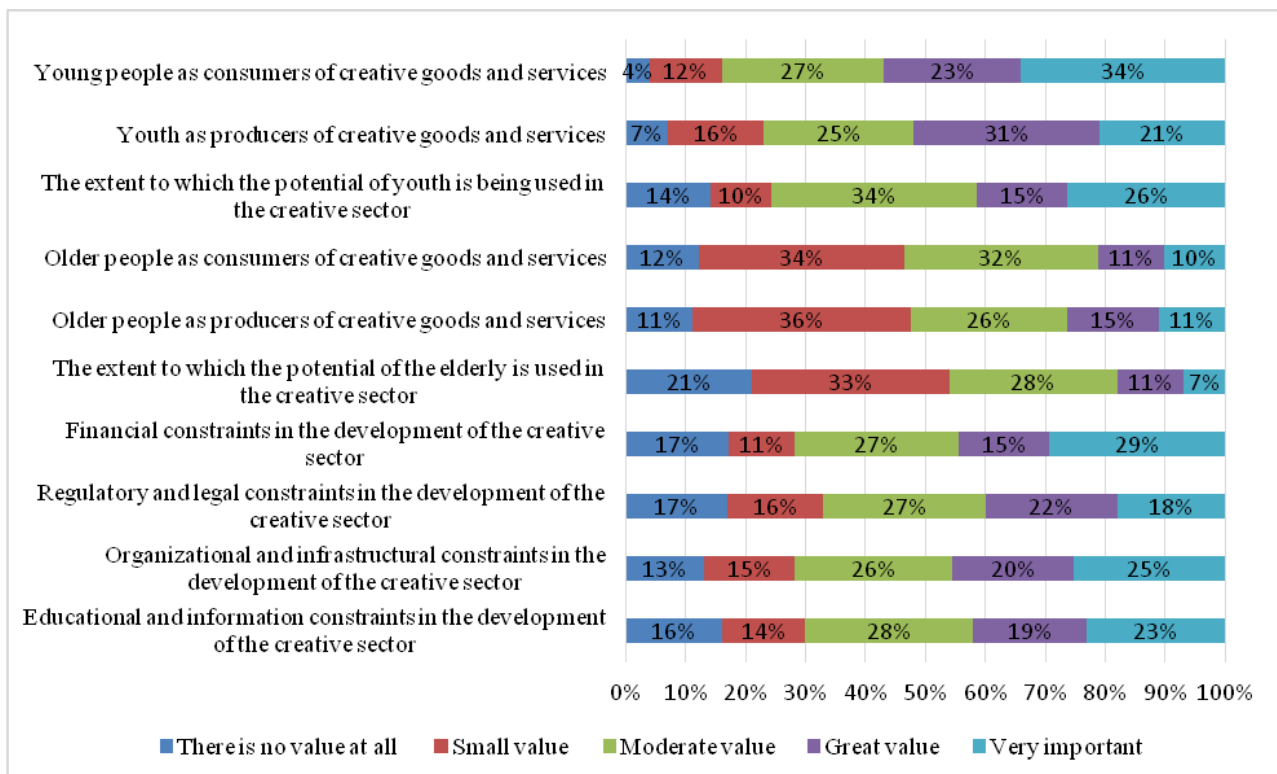


Figure 6. Assessment by representatives of the creative industries of the degree of use of the potential of young and elderly people, as well as the significance of restrictions in the creative economy of Kazakhstan

Note — Compiled by the authors based on the results of the survey

According to representatives of the creative industries, barriers to their activities are significant, but they can be overcome with solutions. The lack of financial resources is the most significant obstacle. When asked about the advantages of developing the creative sector in the region, the following were given the largest share of positive responses: the opportunity to generate sufficient income through talent, mental and creative activities (47 % of respondents said “yes”), the benefits of employment in flexible and non-traditional forms, including freelance and outsourcing (43 % answered “yes”), population preference for creative leisure activities (35 % said “yes”) and high demand for creative products (30 % agreed, 46 % said “rather yes than no”). However, creative entrepreneurs are more cautious about the degree of support for their creative activity and the level of development of the creative community in the area. They are most pessimistic about the degree of resolution of the problems of clustering in the creative industries in Kazakhstan. Overcoming these problems will give a significant impetus to the development of domestic creative clusters (Figure 7).

So we can conclude that representatives of the creative industry almost equally assess the effectiveness of government support for the creative sector, as well as the support provided by creative associations. However, they express more gratitude towards the associations of creative entrepreneurs. Nice to find that that

only a small proportion of creative entrepreneurs see no help from government actions. The representatives of creative businesses interviewed by us also indicated that they carry out active work to teach creative skills.

The fourth focus group included representatives from government agencies. Issues related to the subject of the sociological survey which, as we know, are under the jurisdiction of various institutions and departments. 35 employees of a number of domestic government agencies took part in our survey. It became clear that the types of activities supervised by the institutions of the employees we interviewed were: social policy and social protection of the population (23 %), youth policy (17 %), regional (Figure 8).

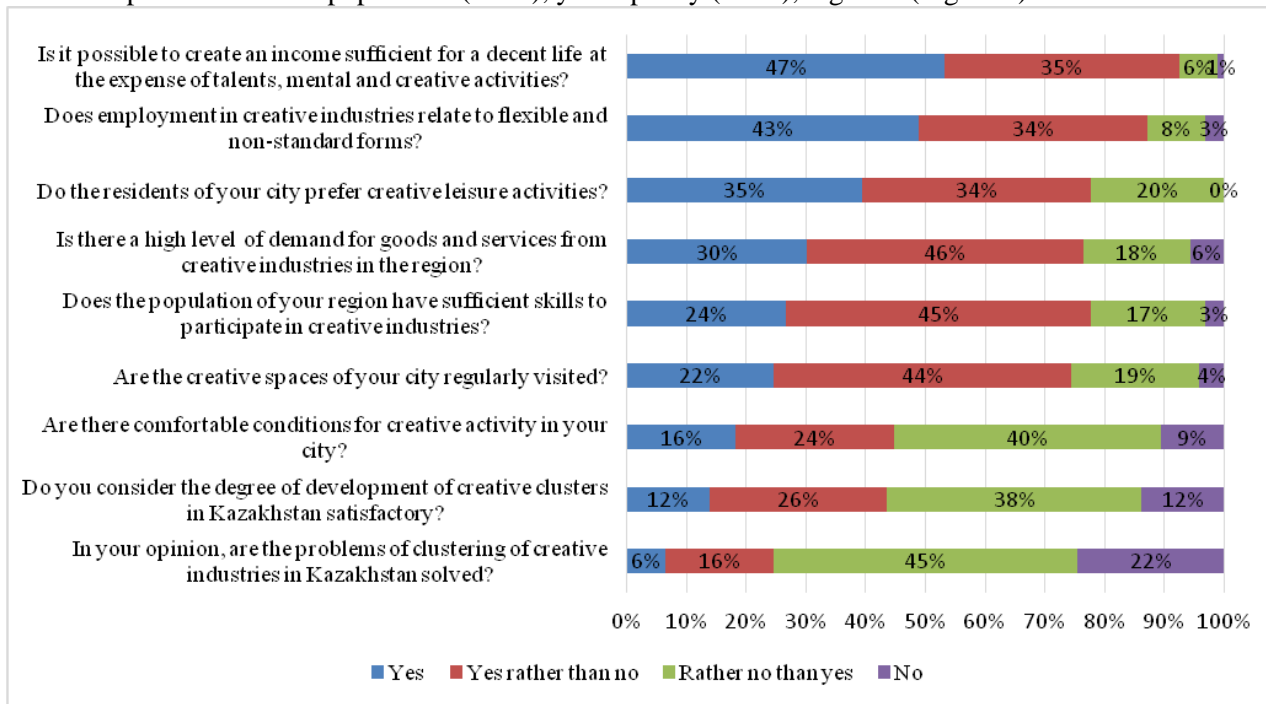


Figure 7. Assessment by representatives of the creative industries of factors affecting the development of the creative sector in the region

Note — Compiled by the authors based on the results of the survey

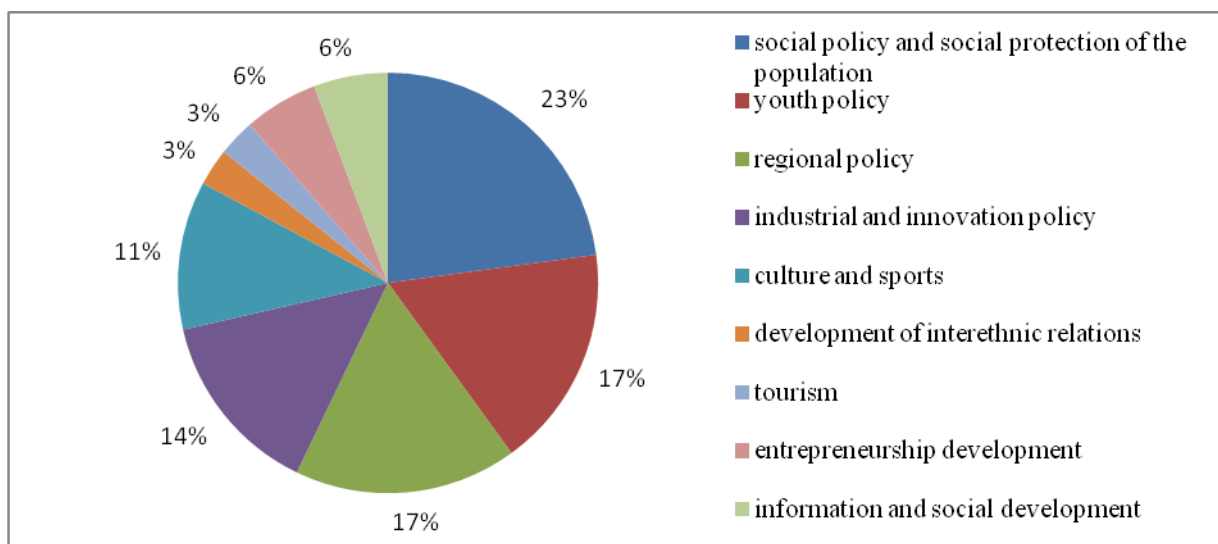


Figure 8. The field of specialization of the representatives from state bodies who participated in the survey

Note — Compiled by the authors based on the results of the survey

We can conclude that employees of government agencies generally tend to attach great importance to the state and level of development of their subordinate areas of activity. They seem to avoid making negative assessments and there are no “no value” answers at all. If there is uncertainty in assessments of the state of

the creative economy, these respondents express it by choosing transitional options instead of unambiguous answers.

The results of the survey among this focus group compared to other groups depict a significantly different picture. If we look at the diagram, we can see that the majority of government representatives pointed to the high role of youth in the consumption and production of creative products. There is no complete confidence in assessing the extent to which the potential of young people is used in the creative sector, but still the majority noted the great importance.

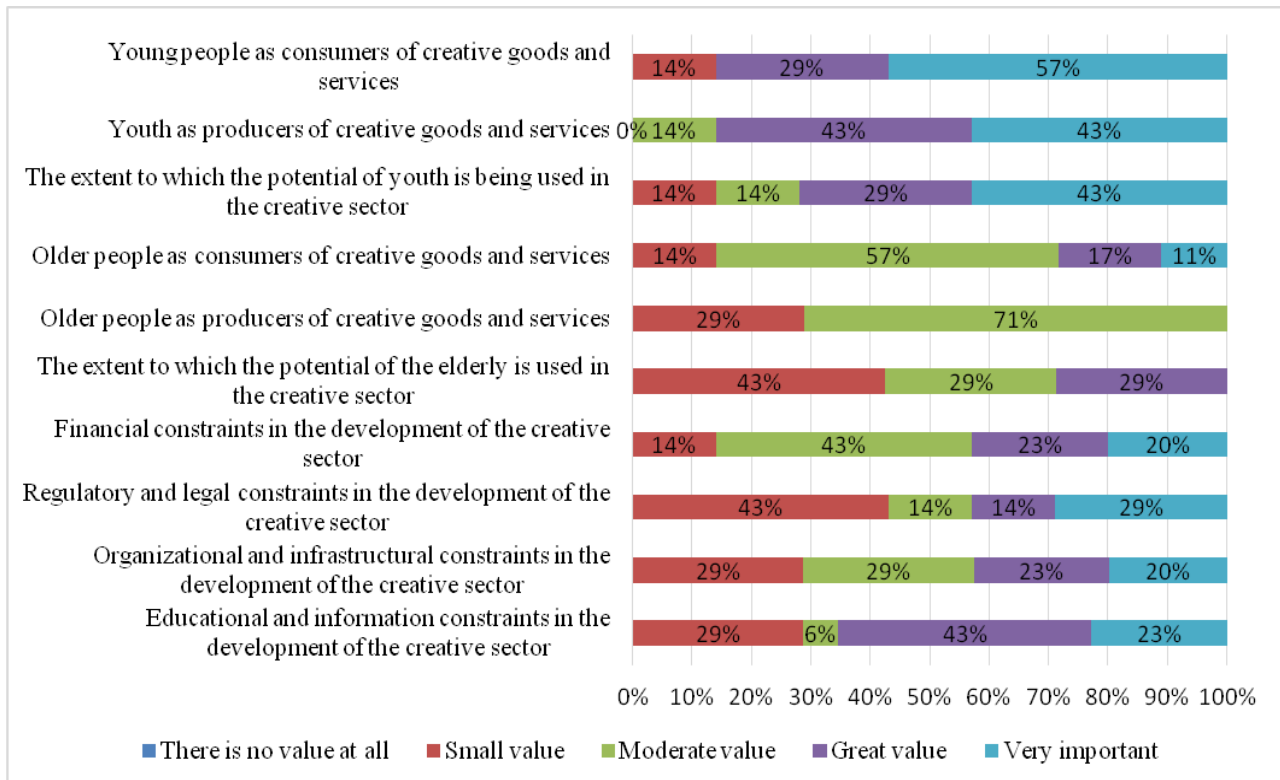


Figure 9. Assessment by representatives of government agencies of the degree of use of the potential of young and elderly people, as well as the importance of restrictions on the creative economy in Kazakhstan

Note — Compiled by the authors based on the results of the survey

In relation to the elderly, only a tenth of government employees indicated a high level of interest in consuming creative products. However, the participation of older people in their production was questioned by all respondents. Regarding the use of the potential of older people in Kazakhstan's creative sector, the respondents refrained from giving extreme answers, although skepticism was evident (рисунок 25).

One fifth of the civil servants surveyed attached great importance to all types of restrictions and barriers identified in the questionnaire regarding the development of the creative sector. Government officials stated that regulatory barriers were the least significant in limiting the activities of creative entrepreneurs (рисунок 26).

The vast majority of government employees are confident that their region has all the conditions and necessary environment for successful development of creative industries. Respondents have a clear idea that residents of regions have necessary talents, and spend their leisure time on creative activities (83 % of respondents answered yes). With a certain degree of confidence, state apparatus employees indicated that population actively visit creative spaces at residence (workshops, coworking areas, labs, music or art studios, concerts venues, museums, libraries, theatres, etc.), and are in comfortable conditions to create, have necessary skills, and creative products are high in demand (Figure 11).

The respondents highly evaluate the work of the executive and legislative bodies; it is obvious that they believe that government assistance to the creative industries is achieving results, and activities to teach creative skills are being carried out. We can come to the conclusion that civil servants rate their organization's activities in promoting the development of the creative economy highly. We believe that government officials also rate the activities of creative associations and associations of creative entrepreneurs quite highly.

At the same time, we can see here that almost a third of respondents (29 %) in their practice have not encountered government activity in carrying out activities to teach creative skills to the population.

It can be concluded that the respondents fully agree with the rationale for developing a specialized program or roadmap for the development and clustering of creative industries, as well as with the need for additional training to develop competencies among those wishing to work in the creative industries. At the same time, one third of our respondents (34 %) do not seem to see the point in expanding the state apparatus by establishing specialized government departments to support the development of creative industries.

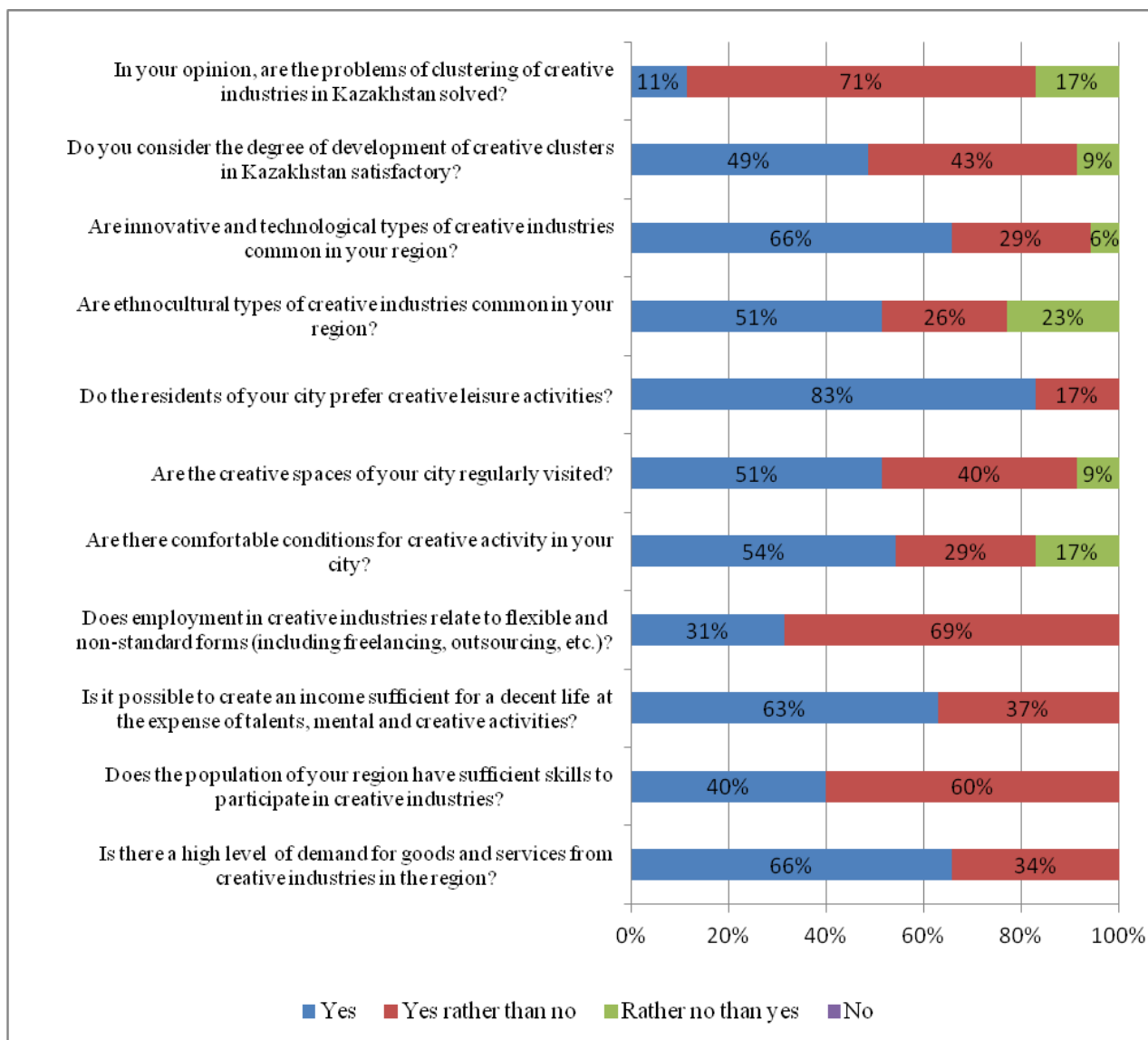


Figure 10. Assessment by representatives of creative industries of factors affecting the development of the creative sector in the region

Note — Compiled by the authors based on the results of the survey

Let's move on to the vision of our respondents from an industry perspective. So in the chart below, you can see which sectors of creative industry are considered promising according to each focus group's perspective (Figure 11).

The picture we obtained allows us to conclude that young people largely prefer such areas as music and sound design, computer graphics and animation, fashion, film and other video production, design, computer games, performing arts, theater and festival activities. These types of activities were indicated by more than one third of respondents in our study.

We also find that the following will be quite preferable in the eyes of young people: media, software and IT development, fine arts, performing arts. These types of creativity attract 20 % or more of the youth we surveyed.

We find that a third of the elderly indicated that none of the options we proposed were of interest at all. So, as it seems to us, the most popular for the older generation are: crafts and needlework (21 %), gastronomy (15 %), fashion (14 %), music and sound design (12 %), literary and publishing activities (11 %). Thus, the analysis of our questionnaires revealed that the elderly are least interested in and participate in activities such as: computer graphics and animation, architecture, urban planning and organization of public spaces, fine and visual arts, education in creative industries, software development, and IT. Thus, the data obtained confirms the hypothesis of insufficient digital competencies among older people and their low participation in the digital economy discovered by Chinese researchers through their survey (Yang et al., 2022).

Creative entrepreneurs consider almost all types of creative activities promising for the development in their region, attaching special importance to supporting the development of crafts, design, IT, fine arts, media and others.

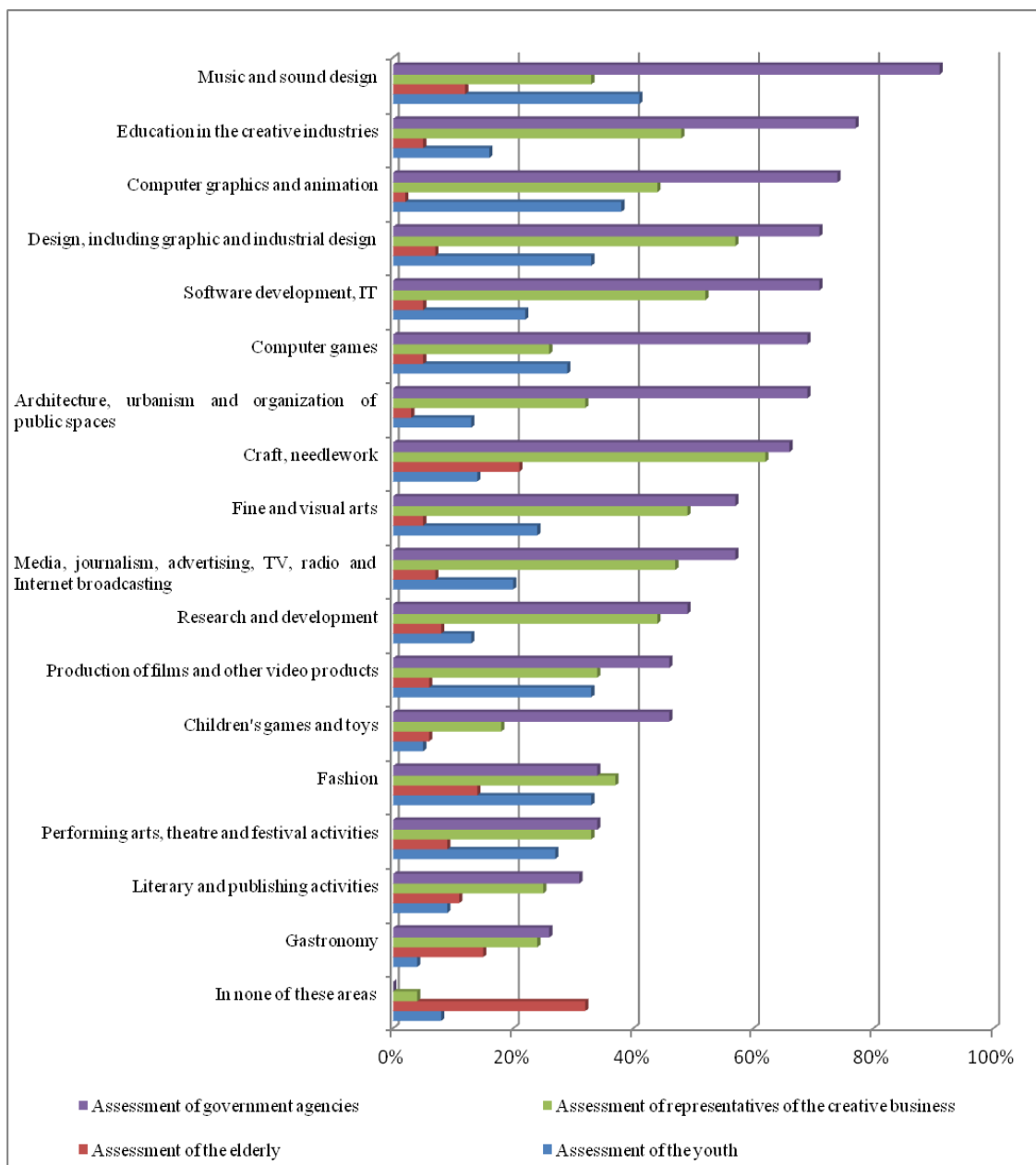


Figure 11. Focus groups' assessment of the prospects of various spheres of the creative sector in Kazakhstan

Note — Compiled by the authors based on the results of the survey

Civil servants presented their version of the most promising areas of the creative sector in the region. Their list is headed by the activities of domestic musicians and sound designers (91 % of respondents). Further preferences are given to education in the creative industries (77 %), computer graphics and animation (74 %), design, including graphic and industrial design (71 %), software development and IT (71 %), computer games (69 %), architecture, urbanism and the organization of public spaces (69 %), crafts, needlework (69 %). Thus, two thirds of the respondents are focused on the priority of the development of the IT sector. In general, government officials see the prospects of all types of creative sector activities.

Discussion

An institutional system for the development of creative industries has been established in Kazakhstan. It is represented by a variety of institutions and regulatory acts, including specialized programs and concepts. However, the activation of the potential of young people and older people in the creative industry requires a set of measures from various state and quasi-governmental organizations. An approximate list of these measures is given in the table below.

Table 1. Tools for the Government's Influence on the Activation of the Potential of Young and Elderly People in Creative Industries in Kazakhstan

	General Tools	Tools for Activating Youth Potential	Tools for Activating Elderly People Potential
The system of education and additional training (including clubs, activities)	Inclusion of additional education Organization of subsidized creative skills courses Opening of workshops, clubs, organization of training workshops, courses.	Introduction of national types of creativity in additional training and secondary education institutions Introduction to the curriculum of secondary and higher education institutions of subjects and electives related to creativity. Allocation of additional grants for creative educational programs. Introduction of programming languages and other IT disciplines into training programs.	Programs to Overcome Digital Illiteracy Among the Elderly. Organization of Retraining and Reskilling Courses, Educational Programs for the "Silver" Age. Specialized Programs for Learning Creative Activities. Organization of Clubs and Interest-Based Communities.
Institutes for Supporting Entrepreneurship, Employment, and Creativity	Organization of Mass Events, Thematic Celebrations and Evenings, Social Campaigns. Encouragement of Individual Creative Activities and Crafts. Grants for Opening Workshops. Support for National Forms of Creativity. Creative Grants.	Programs for Activating NEET Youth. Encouraging Youth Activity and Involvement in Active Endeavors. Support Programs and Competitions for Youth Entrepreneurship and Arts. Support for Youth Team Startup Projects.	Inclusion of Elderly Individuals in Expert and Advisory Councils, Commissions, and Juries. Full and Part-Time Employment Programs for Retirees. Organization of Events for the Elderly Considering Their Age-Specific Needs. Art Therapy. Development and Implementation of Healthy Aging Programs.
Local Executive Authorities	Spatial Allocation and Improvement of Public Spaces and Art Areas, Creation of Recreational Zones for Adults. Organization of Fairs, Presentations, Exhibitions, and Competitions. Updating Library Book Collections with Popular Literature. Encouragement of Cultural and Art Tourism Development.	Support for Young Creative Professionals in Housing. Creation and Promotion of Projects Involving Youth, Facilitation of Business and Youth Collaboration.	Involvement of Experienced Representatives from the Older Generation in Observational Councils, Encouragement of Mentorship Programs.

	Allocation of Grants by Local Executive Authorities for the Development of Creative Startups for Youth and the Elderly.		
Cultural organizations and institutions, creative associations	Organization of creative contests, Olympiads, screenings, festivals, exhibitions, screenings, excursions. Encouragement and popularization of philanthropy, patronage, endowment, collectors' clubs to support creative people. Organization of the premiere of the video. State order for audio, video products, theatrical productions, etc., forming the right value system	Encouraging the participation of young people in international creative competitions. Encouraging national branding in creative products and services Ideological measures, the promotion of economic education and management, the formation of creative thinking as opposed to the hedonistic consciousness of youth, the glorification of the leaders of creative industries from among the youth.	Organization of concerts, creative evenings with retro repertoire. The opening of sports complexes, swimming pools, sports grounds, active recreation areas with comfortable conditions for the elderly.
Government programs	Protection and promotion of national cultural heritage sites. Support for the creative sector as resource-saving industries and an environmentally friendly sphere. Development of the infrastructure of creative cultural industries.	Legal protection of non-standard forms of youth employment. Support for youth organizations.	Small business lending programs designed for the elderly.
<i>Note — compiled by the authors</i>			

Conclusions

The problems of inclusion in the creative economy are faced more thoroughly by older people than young people. Barriers and limitations to creative activity, especially financial ones, exist, but they frighten younger people and government officials less.

The elderly indicated the lowest assessment of the state of development of the creative economy. Representatives of government agencies and young people showed more positive responses. Representatives of the creative industry are skeptical about government support measures but sincerely believe in the great prospects for the development of their industries. Government agencies consider the same activities that are popular with young people to be most promising. Music and IT, which are considered innovative activities, lead the way here. Older people prefer traditional crafts and handicrafts, which are currently popular among creative entrepreneurs in Kazakhstan. The hypothesis put forward by the study has been confirmed.

All respondents emphasized the importance of teaching creative skills. Despite the existence of a fairly well-established institutional framework for developing creative industries in Kazakhstan, a further set of measures are needed to harness the socio-economic potential of young people and older people in the clustering of creative industries.

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Потенциал участия молодежи и пожилых людей в развитии креативных индустрий Казахстана и направления его активизации

Аннотация

Цель: Оценить потенциал диверсификации социально-экономического участия молодежи и пожилых людей в развитии креативных индустрий Республики Казахстан.

Методы: В исследовании использованы методы опосредованного выборочного социологического опроса с выделением отдельных фокус-групп, графической интерпретации полученных ответов и их сравнительного анализа.

Результаты: Объектом исследования выступили крупнейшие города Казахстана. Было проведено анкетирование четырех фокус-групп: молодежи, пожилых людей, представителей креативных индустрий, государственных органов. Для активизации социально-экономического потенциала молодежи и пожилых людей предложены комплекс специализированных мер государственной поддержки.

Выводы: Степень вовлечения молодежи и пожилых людей в производство и потребление оказывает влияние на диверсификацию креативных индустрий. Выявлено, что молодежь активно участвует в производстве и потреблении креативной продукции. Пожилые люди тоже участвуют в производстве и потреблении продукции креативных отраслей, однако в меньшей степени. Несмотря на наличие существенного потенциала и опыта креативной деятельности в прошлом, их текущая вовлеченность ограничена.

Дополнительная информация: Представленное в настоящей статье исследование выполнено в рамках проекта, финансируемого Комитетом по науке Министерства высшего образования и науки Республики Казахстан. (Грант № AP14871023).

Ключевые слова: креативные индустрии, социально-экономический потенциал, молодежь, пожилые люди, creative economy, инклюзия, государственная поддержка, ассоциации креативных предпринимателей, социологический опрос.

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Жастар мен қарттардың Қазақстанның креативті индустрияларын дамытуға қатысу әлеуеті және оны жандандыру бағыттары

Аңдатпа

Мақсаты: Қазақстан Республикасының креативті индустрияларын дамытуға жастар мен қарттардың әлеуметтік-экономикалық қатысуын әртараптандыру әлеуетін бағалау.

Әдістері: Зерттеуде жеке фокус-топтарды бөліп көрсете отырып, жанама таңдамалы социологиялық сауалнама әдістері, алынған жауаптарды графикалық интерпретациялау және оларды салыстырмалы талдау әдістері қолданылды.

Нәтижелер: Зерттеу нысаны Қазақстанның ірі қалалары болды. Төрт фокус-топка сауалнама жүргізілді: жастар, қарттар, креативті индустрия өкілдері, мемлекеттік органдар. Жастар мен қарттардың әлеуметтік-экономикалық әлеуетін жандандыру үшін мемлекеттік қолдаудың мамандандырылған шараларының кешені ұсынылды.

Қорытынды: Жастар мен қарттарды өндіріс пен тұтынуға тарту дәрежесі шығармашылық салаларды әртараптандыруға әсер етеді. Жастар креативті өнімдерді өндіруге және тұтынуға белсенді қатысатыны анықталды, жастардың жартысынан көбі өздерін креативті бизнесте көреді. Егде жастағы адамдар да креативті салалардың өнімдерін өндіруге және тұтынуға қатысады, бірақ аз дәрежеде, әсіресе олардың өндіріс процесіне қатысуы, бұрынғы шығармашылық қызметтің айтарлықтай әлеуеті мен тәжірибесінің, сондай-ақ шығармашылық кеңістіктерге бару және бос уақытты шығармашылық өткізу белсенділігінің болуына қарамастан.

Қосымша ақпарат: Берілген мақалада келтірілген зерттеу Қазақстан Республикасы Ғылым және жоғары білім министрлігінің Ғылым комитеті (Грант № AP14871023) қаржыландыратын жоба аясында жүзеге асырылды.

Кілт сөздер: креативті индустриялар, әлеуметтік-экономикалық әлеует, жастар, қарт адамдар, креативті экономика, инклюзия, мемлекеттік қолдау, креативті кәсіпкерлер қауымдастығы, әлеуметтанулық сауалнама.

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The development of urbanization processes in the Republic of Kazakhstan and abroad: a comparative analysis

Abstract

Object: The purpose of the study is a comparative analysis of the processes of urbanization development in Kazakhstan and in Russia, covering the chronological framework of almost a century period.

Methods: concretization and abstraction; retrospective analysis and classification; comparative analysis; descriptive method; statistical methods and methods of scientific analysis and synthesis.

Findings: The key findings of the study are summarized in the following conclusions:

- The special demographic structure of the 1980s was reinforced by the economic restructuring of the 1990s and gave rise to probably the most important problem of the 21st century in Russia and the countries of the former USSR: demographic decline and urban population decline.

- At present, the development of former socialist cities is largely determined by market forces and democratically elected governments. However, they are also not fully developed capitalist cities.

- The main similarity between the urbanization of Russia and Kazakhstan is the gap between the most developed major cities of federal and republican significance and lagging medium and small cities.

- In Russia and Kazakhstan, medium and small towns are often characterized by specialized and less diversified economies.

Conclusions: The development of medium-sized and small cities in Russia and Kazakhstan faces the main problems: lack of financing and/or inefficient use; barriers to decentralization; insufficiently effective regulatory framework and lack of standards or their ineffective implementation regarding sustainable and environmentally friendly development.

Keywords: public administration, urbanization, globalization, sustainable development, cities, megacities.

Introduction

Today, the phenomenon of urbanization affects all countries of the world. The evolution of production technologies, technological progress, the difficulties of rural employment, rural poverty and the advantages of modern urban life are examples that encourage migration to urban ensembles. Thus, existing cities continue to grow, and new ones are being created, thereby strengthening the urban system. In such studies of urban economics, we call this phenomenon "urban development" (UNDESA, 2021).

The city was defined as a place of maximum social interaction, as a place of exercising power and managing the territory, as a center of production, consumption and exchange, as a place of origin and a pole for the spread of innovations.

In fact, a city is a living organism that adapts to the conditions of the era and, in particular, to the needs of its inhabitants. In this regard, in this scientific work it is necessary to consider all the elements that can lead to the development of cities. However, this is very difficult due to the complexity of the variables and their constant evolution. On the one hand, the development of urban systems in each country is not a random phenomenon; on the other hand, monitoring the future development of cities requires the implementation of a thorough planning program (Henderson, 1997).

The purpose of the study is a comparative analysis of the processes of urbanization development in Kazakhstan and in Russia, covering the chronological framework of almost a century.

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Based on the purpose of the study, the following tasks were set:

- to study the evolution of urbanization in Russia and Kazakhstan;
- to assess the degree of urbanization of countries;
- to assess the risks and challenges of effective urban development management;
- to form a number of councils for the development of cities and regions of Russia and Kazakhstan.

The relevance of the chosen topic is due to the fact that the changing general context of territorial competition, urban development and territorial governance requires an updated intervention structure and appropriate tools more than ever. It is necessary to simultaneously ask the right questions, find original answers, especially with regard to management, projects and tools, and clearly formulate the scope, time frame and various problems in each territory.

Literature Review

Urbanization is fundamentally changing the planet. We can understand this phenomenon in terms of landscapes, demographics, and civilization:

- from the point of view of landscapes: a city is defined by a special type of landscape (buildings, streets, urban material), which radically distinguishes it from rural areas; this also leads to artificial tillage necessary for production and urban life;
- from a demographic point of view: the habitat is urbanizing, and we increasingly live in cities;
- from the point of view of civilization: the urbanization of lifestyle is also the homogenization of lifestyle around the world. Living conditions can be very different, but dreams, customs, norms are becoming standard (UNDP, 2019).

Urban growth is classically the result of three processes:

- natural growth (the difference between fertility and mortality) of the urban population;
- migration from rural areas to cities (or "exodus from rural areas");
- Reclassification of municipalities that were previously considered rural, but are now considered urban (this is largely due to the phenomenon of urban sprawl).

However, along with the growth of cities, the problem of uneven development has arisen. Over the past ten years, in a context where the problem of widening the development gap between territories has become central, numerous studies have shown that the gap between megacities and other types of territories has increased significantly, whether in terms of wealth production (Davezies, Pech, 2014), employment or population growth and housing attractiveness. Often, faced with this growing inequality, States advocate for the concentration of public investments in densely populated areas where they will bring the greatest return, and for the implementation of territorial policies that promote "productivity increases associated with spatial concentration" (Askenazi, Martin, 2015).

Thus, the combination of dynamics favorable to megacities and a revision of the territorial planning policy based on the goal of territorial equality raises the question of what will become of non-megacities and, in particular, of medium-sized cities. Although these cities have played a key role in the country's urban structure, their demographic and economic weight remains unchanged, and even today they represent a network of territorial organization, service and access to services. Their position and trajectories have become much more fragile (Demazière, 2014; Santamaria, 2012; Floch, Morel, 2011; De Roo, 2007). Some of them, which are under the combined influence of the processes of metropolization and deindustrialization, currently represent disintegrating cities, defined as "urban spaces in which there are population losses, economic recession, reduced employment and social problems, that is, all the symptoms of a structural crisis" (Martinez-Fernandez et al., 2012). In fact, the process of urban decay affects small and medium-sized cities more than large cities (Wolff et al., 2013; Cauchi-Duval et al., 2017). At the local level, the processes of urban decline are accompanied, on the one hand, by population instability and an increase in socio-spatial inequality, and on the other hand, by growing inequality between often vulnerable urban centers and more prosperous peripheries, which indicates problems of territorial equality.

In this context, the authors aim to test this hypothesis, whether in practice there is a problem of medium-sized cities in Russia and Kazakhstan. And also, to find out whether the territorial planning policy considers the problems specific to these cities, and whether it still pursues the goal of territorial equality on a national scale?

Methods

Research methods are formulated based on the task, as a result of which the following methods and approaches are used:

1. Historical analysis, which includes:

– Analysis of statistical data on the growth of urban population, the number of cities, and migration flows over different historical periods.

– Study of archival documents, legislative acts, urban planning plans reflecting the dynamics of urbanization.

Analysis of scientific literature on the history of urbanization in Russia and Kazakhstan.

2. Comparative analysis:

– Comparison of stages and features of urbanization in Russia and Kazakhstan, identification of common features and differences.

– Comparison with the experience of urbanization in other countries, taking into account the specifics of socio-economic development.

3. Statistical analysis:

– Using data from Rosstat and the Bureau of National Statistics of Kazakhstan on the number of urban and rural populations, population density, and standard of living in cities.

– Calculation of indicators of urbanization, such as the proportion of urban population, urban growth rates, the level of population concentration in large cities.

– Analysis of spatial patterns of urbanization, identification of regions with high and low concentrations of urban population.

4. Risk assessment and problems of effective urbanization management:

– SWOT analysis: identification of strengths and weaknesses, opportunities and threats related to urbanization in Russia and Kazakhstan.

– Analysis of the factors contributing to the effective management of urbanization and ways to solve the problem.

– Case analysis: study of successful and unsuccessful examples of urbanization management in different cities of Russia and Kazakhstan, identification of success factors and causes of failures.

The research information base consists of normative acts of state and local executive authorities; research work of the World Bank, OECD, UNDP reports; scientific publications in journals and online resources; information on the official website of state and local executive authorities; statistical indicators of the Federal State Statistics Service of the Russian Federation, the agency for strategic planning and reforms of the Republic of Kazakhstan.

Results

Within the framework of this study, the authors conduct a comparative analysis of the processes of urbanization development in Russia and in Kazakhstan. It is important to emphasize that historically the two countries were part of the same state — the USSR, which led to some similar features of the development of urbanization.

In general, the Soviet history of urbanization, firstly, is associated with a huge movement for exodus from rural areas, when the urban population of the Soviet Union increased from 26.3 million inhabitants to 86.3 million between 1926 and 1955, that is, the level of urbanization of the population ranges from 18 to 50 %. In the minds of Soviet intellectuals, the separation of people from rural areas meant the eradication of former religious and social preferences and the formation of a new person, formed in accordance with revolutionary ideals. There are three main periods in the history of urban planning in the USSR: the revolutionary period from 1917 to the 1930s, the Stalinist period from the 1930s to 1956 and, finally, the post-Stalinist period, defined between 1956 and the collapse of the Soviet Union in 1991 (Robic, 1982).

The urbanization of the Soviet Union was enormous. As for the largest settlements, in 1897 there were 17 cities with a population of more than 100,000 people, in 1926–31, in 1939–82, in 1959–148. In general, the urban population increased almost 4 times in the period from 1926 to 1959 throughout the USSR. Compared to this average, urban areas have increased almost 4 times. The West has taken over the lag (coefficient 2.9), while the eastern regions are significantly ahead (coefficient 5.5) (Alonso, 1964).

It is noteworthy that Kazakhstan developed at the fastest pace: from 1926 to 1959, the number of urban residents increased 8.6 times, only during this period 82 % of cities were urbanized, most often on empty

lands until 1930. The indicator, by the way, differs by zones: the coefficient is 3.2 in Western Kazakhstan; 13.8 in the Karaganda region (Akhmedov, 2019).

Thus, from 1926 to 1959, an extraordinary process of urbanization took place in the USSR, marked by both the development of old cities and the creation of new agglomerations. Both of these aspects of the phenomenon happened very quickly, both one and the other. The evolution of such a scale has, of course, completely changed the face of the urban network, causing a significant growth of old agglomerations, the creation and development of very large new cities, and the emergence of urban centers in remote peripheral regions. Closely related to development and industrialization and widely spread throughout the Union, this urbanization, impressive in its scale and speed, organized and planned through planning, seems to be the very symbol of systematic and effective territorial planning.

In the USSR, trade, which had become an element of the general administrative system, no longer played a decisive role in the economic development of the country. Industry took over, the creation or expansion of factories led to the emergence and growth of cities and the arrival of rural residents leaving the land. And since industry has contributed to the growth of the urban population, it also attracts administrative and commercial services to the city. However, industrialization is the most powerful factor of regional development, the real driving force of any effective territorial planning.

Thus, in this regard, it can be said that the Soviet industrialization policy was largely successful, since it not only significantly increased the economic potential of the country, but also expanded all the regions that thus benefited from development. Industry has really established itself everywhere, revitalizing or creating every city, transforming every small region, sometimes based on local needs, sometimes in order to use regional wealth for the benefit of the Union.

Thus, the city appears not only as a symbol, but also as the main basis for the economic and social development of the Soviet Union. It has been and remains the preferred and often very important tool for the "take-off" or progress of various regions of the Union. It can be said that the urbanization of the Soviet Union corresponded in scale to the industrialization efforts supported by this country, since it was both a condition and a consequence of these efforts.

A. Blum (2004) suggests that some discrepancy, discovered since the 1960s in the demographic characteristics of Central Asia in relation to Russia, is precisely due to the "homogeneous orientation" of the health care system applied to different forms of mortality: "setting mainly technical goals, not caring about local needs, limiting medicine to technical with its approach to providing medical care, it limits and even interrupts this progress. In a sense, Soviet health policy did not understand that it was impossible to treat the situation in the field of health and medicine of the old regime and the modern situation equally." (Blum, 2004, 155). According to him, this is an important factor explaining the very low life expectancy that was still observed after independence in most countries of the former Soviet Union.

A. Blum adds: "Differences in behavior from republic to republic, from socio-cultural space to socio-cultural space have not been changed by integration into a common political whole called the Soviet Union. The space outlined by geographical boundaries outside the Soviet Union was perfectly hermetically sealed to any movement, and the social behaviors underlying demographic attitudes remained tied to them. Common history has not been able to destroy these foundations or cut off these regional ensembles that make up the Soviet Union from their traditional cultural area. The various gaps that occurred throughout the history of the Soviet Union, although they caused many demographic catastrophes, did not affect long-term trends." (Blum, 2004, 146–147)

This demographic conclusion is supported by the economic profile of the specialization of the states formed on the territory of the USSR. Thus, while in the Soviet Union as a whole in 1985 the share of industrial workers was 52 %, in Central Asia this figure fell to 20.6 % — less than in neighbors Iran or Turkey — or even between 15 and 20 % in Tajikistan or Turkmenistan (table 1).

Table 1. Sectoral national specializations in the USSR

Geographical area	Share of assets in the industry, in %	Geographical area	Share of assets in the industry, in %
Central Asia	20.6	USSR	52.0
Uzbekistan	20.9	Iran	33.0
Kyrgyzstan	27.1	Turkey	29.0
Tajikistan	18.5	Pakistan	16.0
Turkmenistan	14.7	Afghanistan	14.0

Note — compiled by the author based on (Vichnevski A., 1995)

These regional differences should be compared with the levels of urbanization in 1989 (table 2), which show a strong gap between mature levels of urbanization rates on the European side, with the exception of Moldova, and territories still predominantly rural in the south of the USSR in 1989 — with rates of less than 40 % in Tajikistan, Kyrgyzstan, Turkmenistan and Uzbekistan.

Table 2. National rates of urbanization in the USSR in 1989

Geographical area	Rates of urbanization, in %	Geographical area	Rates of urbanization, in %
Central Asia	40.7	USSR	58.7
Kazakhstan	50.4	Russia	66.4
Azerbaijan	46.9	Latvia	61.9
Georgia	46.4	Estonia	61.4
Moldova	42.1	Lithuania	60.2
Uzbekistan	38.6	Belarus	59.0
Turkmenistan	39.6	Ukraine	58.2
Kyrgyzstan	32.6	Armenia	58.2
Tajikistan	28.0		

Note — compiled by the author based on (Vichnevski A., 1995)

Thus, it should be noted that regional contrasts in demographic, economic and urban dynamics persisted until the end of the USSR's existence and for some time after independence. "The governments of the newly independent states are returning to each region its traditional cultural zone of belonging" (Blum, 2004, 161), however, this affected mass migration in 1990–2000, as in Kazakhstan, where the north of the country was inhabited mainly by Russian speakers who brought their demographic model with them. This is due to the fact that on a smaller scale, demographic imbalances and gaps are observed in regional ensembles, such as in Central Asia and even in individual countries. Thus, Kazakhstan, the "demographic bridge" between Russia and the rest of Central Asia" (Seys, 2009, 244), itself seems to consist of several demographic regions more or less corresponding to the "ethnic" occupation and neighboring areas of cultural influence. Based on an ascending hierarchical classification combining 25 demographic indicators (fertility, mortality, migration, marriage, divorce, abortion), O. Seys has identified 4 main regions with a clear demogeographic identity in Kazakhstan since 2007 (Figure 1).

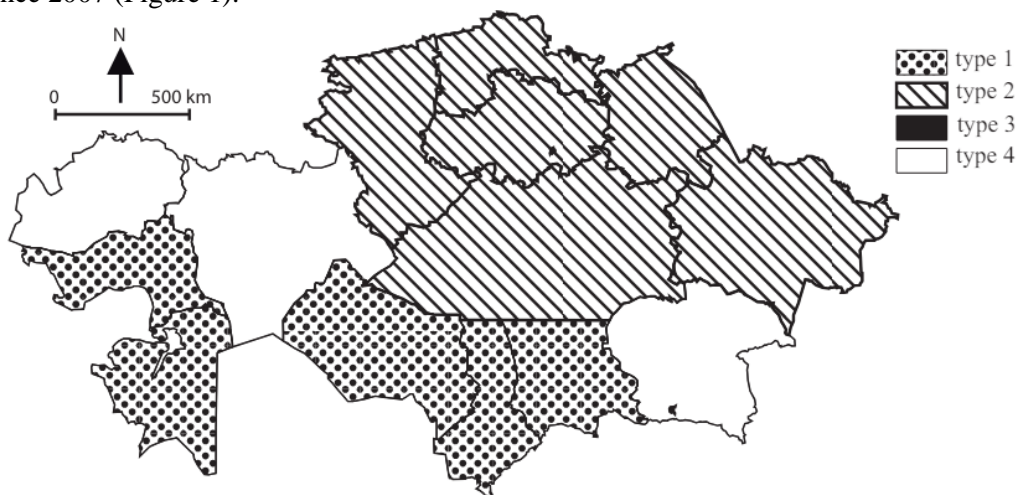


Figure 1. The results of the classification in ascending hierarchy

Note — compiled by the author or compiled by the author based on (Seys F. -O., 2009)

Type 1: South and west of the country. In these regions, there is a very high natural excess due to the high birth rate (ICF greater than or equal to 3) in a more traditional family environment.

Type 2: The north and east of the country seem to be regions with completely opposite dynamics. The natural excess there is close to zero within the framework of more European family models with low fertility and marital status, while the divorce rate and the proportion of illegitimate children are higher there. Two intermediate spaces are emerging between these two regions, one European and the other Central Asian.

Type 3: Despite the fact that they are located in their demographic regions, one in the north, the other in the south, the two cities of Almaty and Astana demonstrate unique dynamics in terms of migration and mortality.

Type 4: The Ural, Aktobe and Almaty regions are in a demonstration-geographical transitional position between the North and south of the country. The level it uses intermediate indicators, be it fertility, mortality, education and family breakdown, as well as migration growth.

Similarly, within Russia, regional economic and demographic differences were strong before the collapse of the USSR. Since then, they have been experiencing both a tendency towards economic and political divergence, as well as a convergence of technical and social infrastructures. At the same time, the authors emphasize the importance of domestic tax transfers to mitigate the overall imbalance of Russian regions. The urban transition model applied to various regions of the former USSR makes it possible to describe differences in the pace and timing of urbanization on this scale (Artemova et al., 2021).

Over the years of independence, public administration of infrastructure and urbanization have stabilized, which indicates an improvement in the situation. However, most medium-sized cities still face high costs for maintaining and upgrading this infrastructure, which leads to significant reductions in services in many cities. It is estimated that 40 % of the former public housing stock, privatized in the 90s, has deteriorated significantly, which has affected the quality of life of citizens, the rising cost of electricity and the impact of cities on the environment.

Obviously, if we compare the two states at the present stage of development, the main difference lies in the size of the country and, based on this, in the types of government — federal and unitary.

In accordance with the federal structure, the state management of the urbanization process is regulated by Federal Law No. 172-FZ dated June 28, 2014 "On Strategic Planning in the Russian Federation" (Garant, 2024). At the same time, the "Spatial Development Strategy of the Russian Federation" is being implemented. Within the framework of the Spatial Development Strategy of the Russian Federation, proposals are being made to improve the settlement system and priority areas for the use of productive forces in the Russian Federation. In accordance with the Decree of the Government of the Russian Federation dated August 20, 2015 No. 870 "on the content, composition, procedure for developing and approving a Spatial Development Strategy, as well as on the procedure for monitoring and monitoring its implementation" (Ministry of Economic Development of the Russian Federation, 2024), the Strategy has been developed for the entire territory of the Russian Federation with a detailed description of its provisions in the context of the subjects of the Russian Federation.

State management of the urbanization process in Kazakhstan is regulated by Decree of the Government of the Republic of Kazakhstan No. 1434 dated December 30, 2013, approving the main provisions of the general scheme of organization of the territory of the Republic of Kazakhstan (Adilet, 2024a), as well as by Decree of the Government of the Republic of Kazakhstan. from Kazakhstan No. 634 dated December 13, 2013. At the same time, the Strategy "Kazakhstan 2050: a new political course of an established state" (international, 2024) is being implemented, which sets goals for the successful modernization of the main areas of state activity, including urbanization and international integration.

Statistically, both countries are currently characterized by a high degree of urbanization. Thus, in Russia, the level of urbanization is (74.9 %), and most of the population lives in large cities, of which more than 21 % live in settlements with a population of more than one million people and 31 % in cities with a population of half a million people. one million people (fig. 2).

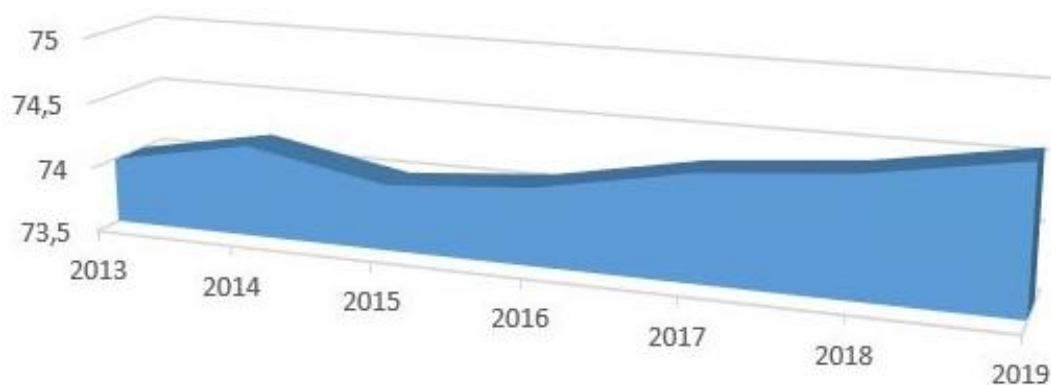


Figure 2. The level of urbanization in Russian Federation, %

Note — compiled by the author or compiled by the author based on (Russian Statistical Yearbook, 2023)

If we compare with the level of urbanization in Kazakhstan, then with a population of 20 million people, the urban population is about 12.5 million people, while the rural population is about 7.5 million people, that is, the level of urbanization is 62.15 % (Fig. 3).

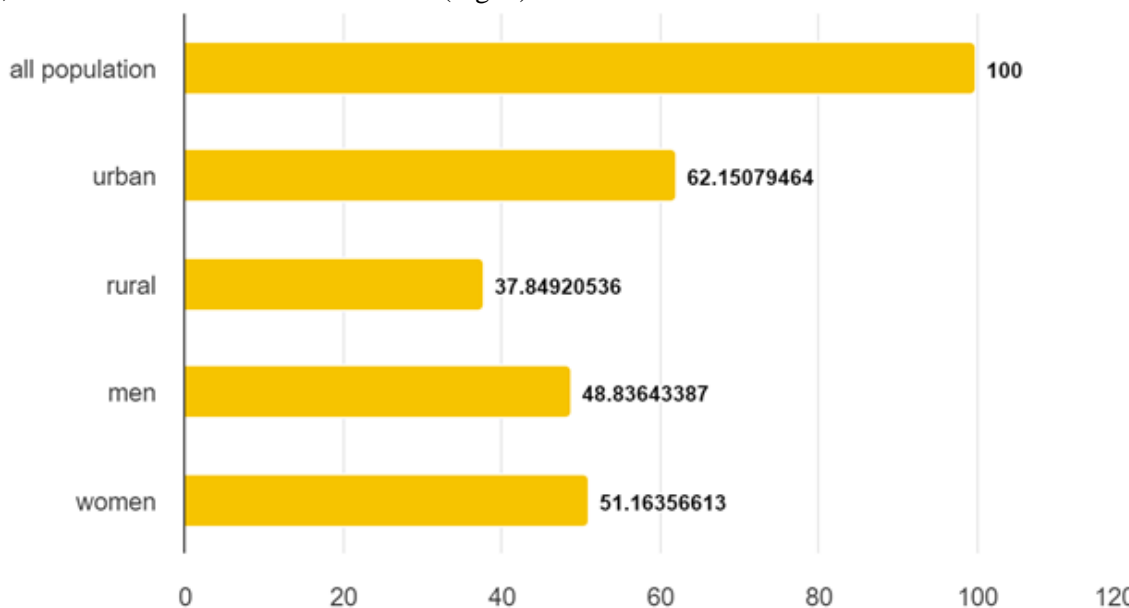


Figure 3. The population by gender and type of settlement at the beginning of 2024, people, as a percentage
 Note — compiled by the author or compiled by the author based on (Bureau of national statistics of the Republic of Kazakhstan, 2024)

According to two legislative bases, three cities have a special legal status. In Russia, Moscow, St. Petersburg and Sevastopol have a special status of federal significance, and in Kazakhstan, Almaty, Astana and Shymkent have the status of republican significance. Based on this, in both cases, high urbanization and agglomeration are observed in cities with a special legal status. Thus, in Russia, the trend remains unchanged: the cities of the Moscow agglomeration are developing at the fastest pace, while cities that are not regional capitals are generally lagging further behind (Fig.4).

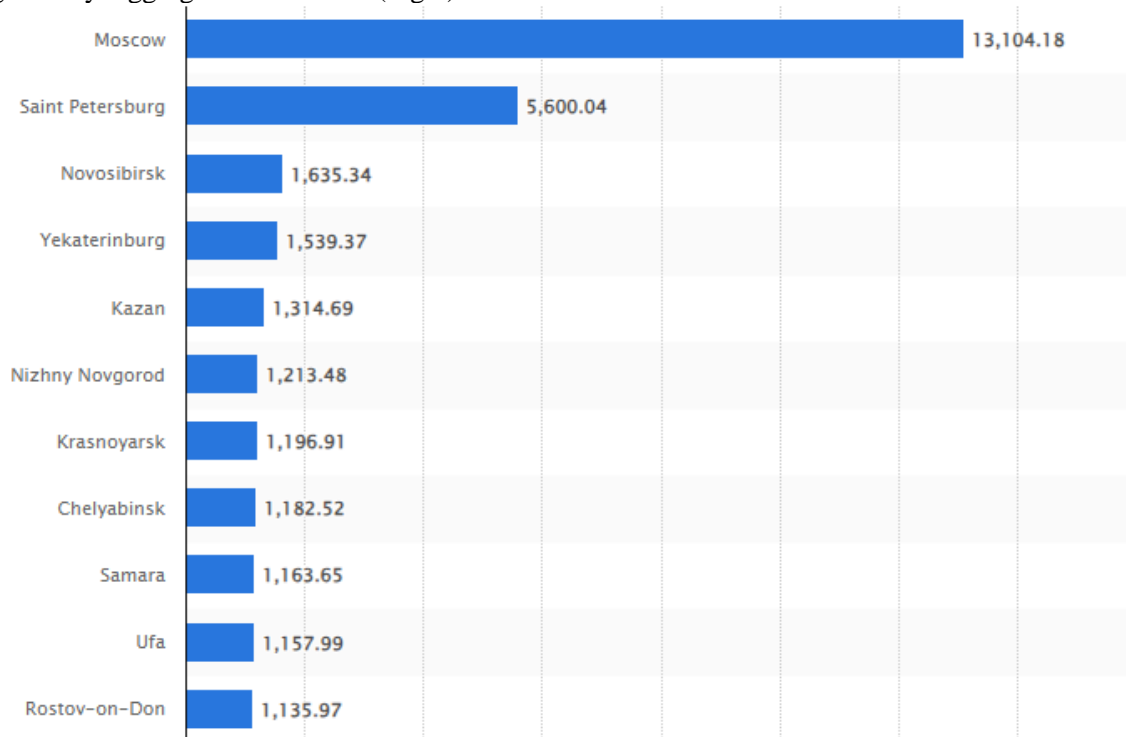


Figure 4. Largest cities in Russia as of January 1, 2023, by population
 Note — compiled by the author or compiled by the author based on (Federal State Statistics Service, 2024b)

The same situation is developing in Kazakhstan: in the former capital of Almaty, and in the current one — Astana. Thus, positive net migration of the population has developed in 4 regions of the country: the cities of Almaty (35,302 people), Astana (33,798 people) and Shymkent (2,756 people), as well as the Almaty region (898 people) (fig. 5). In his Message, the President of Kazakhstan noted that the previously adopted laws "On the status of the capital" and "On the special status of the city of Almaty" played a positive role, but today they need to be improved. A large number of the population of cities of national importance is no longer a matter of pride, but a reason for concern from the point of view of fully ensuring the socio-economic needs of residents (Official website of the President of the Republic of Kazakhstan, 2019).

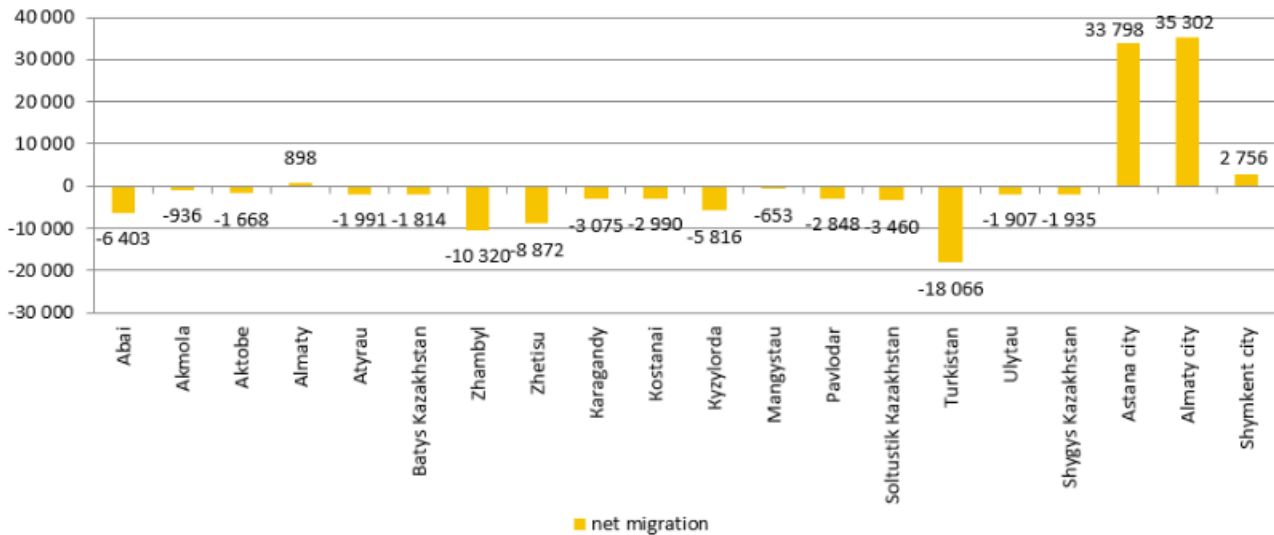


Figure 5. Interregional population migration in Kazakhstan, 2022

Note — compiled by the author or compiled by the author based on (Bureau of national statistics of the Republic of Kazakhstan, 2022)

As mentioned above, the indisputable difference between the two countries is the size of the territory and the number of cities. As of March 9, 2024, there are 1,122 cities in Russia, while there are 89 cities in Kazakhstan.

Moreover, the administrative and territorial structure of the countries is fundamentally different. If there are 89 state entities in Russia, that is, subjects that have their own legislative and executive authorities. They include 22 republics, 9 territories, 46 regions, 3 federal cities, 1 autonomous region and 4 autonomous districts. Such a territorial division complicates the state process of managing the urbanization process, but at the same time allows local authorities to consider the specifics when developing and implementing their own development strategies (Federal State Statistics Service, 2024a).

In turn, Kazakhstan has a unitary type of government, which allows for the implementation of a unified policy of the urbanization process throughout the territory. In the Republic of Kazakhstan, as of January 1, 2024, the number of regions is 17, districts — 188, cities — 89, including 3 of republican significance, settlements — 29, rural districts — 2,169, villages — 6,256 (Citypopulation.de, 2022).

Due to the fundamentally different types of administrative and territorial structures, it is extremely difficult to compare the development of the level of urbanization in the two countries. However, in both cases, we are seeing a disproportionate increase in urbanization across the country.

Thus, the most developed cities in Russia are federal and industrial cities that are export-oriented and, as a result, investment-oriented. The wage gap remains unchanged: northern and federal-level cities specializing in the extraction of natural resources are in the lead. Inequality between large cities is also stable and based on objective factors: size, condition, economic specialization and geographical location.

In order to bridge this gap, a Strategy for the Territorial Development of Russia was developed and adopted in 2018. One of its main goals is the formation of large urban agglomerations and a polycentric national space. The strategy provides for the preservation of forty agglomerations with a population of more than half a million people, which qualify as "very large cities, potential growth centers." It is assumed that the federal budget will allocate additional funds to them for the development of their infrastructure. The first version of the Strategy included from fifteen to twenty settlements. Their number has doubled due to a typical phenomenon in Russia: lobbying local authorities in the hope of obtaining additional funding. The final

list now includes all cities with a population of half a million people, regardless of their socio-economic situation and development prospects. It follows from this that if support is indeed provided, it will be carried out in the form of a general selection or will include selection according to more or less opaque criteria.

Another feature of Russia is that agglomerations develop in different ways, which is confirmed by the per capita figures of the forty largest cities in Russia, which are home to more than five hundred thousand people, to which Kaliningrad (475,000 inhabitants) is added. Cities specializing in metallurgy, oil production and petrochemistry, which receive large revenues from the export of their products, remain the main industrial centers (Federal State Statistics Service, 2024a). Federal cities are the most attractive for investment, and the high performance of other regional centers is explained by short-term factors or the fact that they are "tied" to them. In terms of housing construction per capita, southern, more comfortable cities, regional centers of the Black Earth region, as well as Tyumen and Kaliningrad are in the lead.

However, the development of large cities and their agglomerations is hampered by a number of institutional obstacles. All regional centers are municipalities with the status of urban districts, they have little tax revenue and quite little room for maneuver. Most of the taxes go to the regional or federal budget, urban districts are entitled to receive only 15 % of the income tax collected on their territory (in 2012 it was 30 %), as well as taxes on property and real estate (a very low level in Russia). for individuals and taxes for small businesses. On this basis, it is impossible to form a deficit-free budget for a large city. The level of funding for urban districts increased from 47 % in 2010 to 59 % in 2018. In regions with a population of more than a million people, the largest subsidy in 2018 was received by the urban districts of the Chelyabinsk Region (69 %), and in the Sverdlovsk, Rostov regions and the Krasnoyarsk Territory — more than the average (63–64 %). Tatarstan (42 %), Samara and Novosibirsk regions (47 %) were the least prosperous; Nevertheless, even there, regional authorities control almost half of the budget revenues of large cities (Federal State Statistics Service, 2024a).

The lion's share of transfers (34 % out of 59 %) comes from subsidies provided by the regional government, which directs funds to cities. 16 % are subsidies allocated for specific projects, on which the region also makes decisions, while the city must co-finance them. Subsidies (funds that the city can freely use) amount to only 5 %. In short, there is little money in cities that could be spent on their development, management is determined from above, and almost all the social policy of the municipality (health, education, social security) is transferred to the municipality. the level of the region.

Three decades of independence of Kazakhstan show fairly representative statistics of a gradual slowdown in the growth of the urban population as it leaves the nearest cities. Thus, at the time of independence, an average of 44.2 % of the population lived in cities located within 50 km from the nearest major city. In cities located within a radius of 50–150 km from large cities, the average population growth rate is 17.8 %, and in cities located within a radius of 150–250 km, the average population growth rate is 7.5 %. Suburban settlements, located on average at a distance of more than 250 kilometers from major cities, have not yet restored the population of the Soviet era.

The difference in urban growth rates can be considered a good indicator of the formation of urban nodal systems in which large cities with a population of more than 200 people serve as nodal points, and neighboring cities function in this context, depending, among other things, on the distance from large cities. It is clear why the fastest growing cities near large megacities are those that are known to be mostly residential, such as Zachagansk near Uralsk, Tasboget near Kyzylorda and Kaskelen, located near Almaty.

While in small urban centers, commonly known as industrial cities, there is generally no significant population growth, despite their proximity to large cities. Typical examples of such cities in decline are Saran, Temirtau and Shakhtinsk in the Karaganda region (National Bureau of Statistics, 2020).

In cities located near large cities, several processes are taking place that determine trends in demographic change. First, many cities located around large cities are beginning to function as suburbs, attracting urban populations from central cities as residential areas. Heavy industry has traditionally been seen as a serious negative impact, so cities with heavy industry may not be well suited to attract people from nearby large cities. The whole process of turning a city into a suburb can be considered as part of a larger suburban landscape, where large cities begin to develop and not only absorb neighboring cities, but also partially abandon residential activities in residential areas.

The transition from a planned economy to a market economy has had a significant impact on the system as a whole and on the organization of urban settlements. The shift in the distribution of cities by size in favor of large cities has become one of the main trends indicating a significant concentration of population in large

cities, mainly due to small urban settlements. At the same time, the redistribution of the population from small towns to large ones has also slowed down urbanization.

Thus, in both countries there is an uneven increase in urbanization due to the special status of cities of federal and republican significance and other internal factors. Based on this, the largest cities have the most developed economies and a greater amount of financing and investment. As a result, medium and small towns suffer from loss of human resources, budget shortages and, as a result, lack of economic growth.

Discussions

In the light of all the previously presented data on the Soviet and post-Soviet cities of Russia and Kazakhstan, we see that four types of specificity are distinguished, which can be attributed to the geohistorical conditions characteristic of the Russian Empire, the Soviet Union, and the fifteen states of the former Union.

1. Firstly, the teleological aspect of Soviet urbanization is a property that can be clearly traced in the works of Soviet geographers, and, in particular, in the work of B.S. Khorev (1975), for which even the study of urban settlement should be carried out in accordance with the goal attributed to urbanization: the goal of urbanization is the optimal development of productive forces. It is this goal that also motivates B.S. Khorev's work on marginal production and marginal costs per inhabitant in cities of different size categories in order to get a city with an optimal number of inhabitants. As summarized by R. French and F. Hamilton (1979, 19): "Socialist urban models are what is intended, the so-called blueprints for a planned future."

2. The second type of uniqueness is associated with the intra-urban organization of cities with a systemic component and a historical component, that is, the legacy of the conditions of Soviet urbanization: This is the rural character of the population and urban landscapes, their monotony. These inherited characteristics are changing today, but they retain a special identity, urban landscapes formed under socialism are adapting and being reconstructed to new conditions formed by the political, economic and cultural transition to capitalism. Cities in former communist countries can no longer be considered socialist cities. Currently, their development is largely driven by market forces and democratically elected Governments. However, they are also not fully developed capitalist cities.

3. The predominance of new cities in Soviet times, created in large numbers, about a thousand over several decades, was noted as an important feature that contributed to the internal mobility of the country, as well as the monotony of landscapes (with the same urban forms and up to redundant toponyms).

4. The importance of shocks or "catastrophes": revolution, civil war and "dispossession", world wars, famine, deportations, shock therapy, etc. gave urbanization in the post-Soviet space very peculiar demographic and social features. Probably the most traumatic shock, the Second World War, turned the age and gender pyramid upside down and shook society, the distribution of men and activities. Thus, peoples were deported far from their homelands, industry was moved to the East, creating new urban research and industrial centers, etc. The Cold War emphasized the nuclear and military industries, contributing to the creation of new isolated and closed cities dedicated to advanced research and the creation of new social conditions (Bochko & Zakharchuk, 2020).

Finally, the special demographic structure of the 1980s inherited from the lower classes formed by the war, they were emphasized and reinforced by the economic restructuring of the 1990s and give rise to probably the most important problem of the 21st century in Russia and the countries of the former USSR: demographic decline and urban population decline.

As a result, incorrect or irregular administrative reforms and biased decentralization processes, and of course, the collapse of the Soviet Union, left many intermediate cities with limited resources and opportunities to solve existing problems. Small and medium-sized cities have found that urban planning processes, long-term spatial planning and control over natural resources are gradually declining. The distribution and redistribution of functions and powers between the central and regional levels affected the effectiveness of management in many cities, and the lack of funding for the implementation of programs necessary for development aggravated the situation.

Thus, in Russia and Kazakhstan, medium and small towns are often characterized by specialized and less diversified economies. Many intermediate cities are struggling to adjust to the slowdown in heavy production and modernize the local economy, which leads to problems attracting investment (Gunnar, 2023). There was also a significant decrease in the population due to a decrease in the birth rate, which seems to be an inevitable problem for many cities in Kazakhstan and Russia, as well as for the migration of young people and entrepreneurs.

In Russia, federal, regional and local political systems have a high hierarchy, and intermediate cities are often on the verge of decisive development, characteristic of small towns and rural areas and whose existence depends on regular interaction with other cities. The fragmentation of their systems, the lack of investments to strengthen their economic ties, and their ability to identify and solve specific problems have affected the prospects for regional integration and the development of intermediate cities (Rastvortseva & Manaeva, 2020).

To overcome these problems, it is necessary to strengthen the administrative and financial capabilities of local governments, as well as decentralize power in accordance with the Law. At the same time, the Law should contribute to the development of a more balanced national policy and the creation of mechanisms that promote the development and modernization of intermediate cities.

Both in Russia and Kazakhstan, more powerful internal development is needed to reduce the dependence of material and social capital, as well as goods from intermediate cities, on knowledge-based activities, creativity and technology, in order to reduce their dependence on imports.

Within the framework of this study, the authors propose to implement a three-part approach to the conceptualization of "medium-sized cities" in the reality of urban and demographic systems:

– A morphological approach in which a small town must meet certain criteria in terms of urban structure and habitat;

– An administrative approach in which priority is given to determining that a small town is a recognized "unit of local government territory" within the broader administrative system of the country;

– Finally, a functional approach in which a small city is a concentration in which economic and social activities are concentrated, services are provided and specific administrative functions of the surrounding regional space are performed, which usually coincides with its concentration of urban and (mostly rural) background. The functional method is especially useful in determining the interaction of a small town with its territory. These functions are largely determined by larger local and regional urban systems, including small towns, and not just by their number of inhabitants or size.

Conclusions

Within the framework of this study, the authors concluded that it is necessary to make some changes to the legislative framework in order for the state management of the urbanization process in Russia and Kazakhstan to become more effective, especially for small and medium-sized cities, according to the concept of "medium-sized cities, cities of equilibrium" based on the following principles:

1. Differentiation of support strategies depending on medium-sized cities

Territorial analysis makes it possible to identify needs and problems that differ depending on the territory, in connection with the identification of their vulnerability. Therefore, it is necessary that the support strategies adopted by public authorities take them into account. To this end, we recommend using thematic approaches supported by the Territories by:

– modulating existing social mechanisms in accordance with the variety of problems faced by the Territories;

– orientation, in particular, in areas with a high degree of vulnerability or areas with limited opportunities to solve the tasks facing them;

– Giving preference to actions developed at the local level that can contribute to the reduction of national goals in the Territories, for example, in the field of environmental transition, combined with support and assessment tools.

2. Mobilization and adaptation of existing public policy mechanisms

The multitude of existing mechanisms, the intersections of their perimeters and the multidimensional nature of the problems of medium-sized cities put forward in this work emphasize the importance of strengthening their mobilization. To do this, we recommend giving preference to mobilizing and adapting existing mechanisms, rather than creating new programs or calls for projects, by:

– systematizing, strengthening and sharing at the initial stage assessments of each device in a logic of continuous improvement based on feedback on practical experience;

– exploring on this basis and in collaboration with interested communities the possibilities of improving the formulation of national public policy (whether at the legislative and regulatory level);

– encouragement and support of inter-territorial cooperation through incentive mechanisms (programs and financing aimed at creating an image), allowing to support both design and possible follow-up actions.

3. Consolidating and ensuring sustainable access to a minimum base of amenities and services in medium-sized cities

The study highlights the balancing role of medium-sized cities at the local level, especially in terms of offering amenities and services. We recommend creating conditions to maintain this balancing role, paying special attention to the access of all citizens to a minimum base of amenities and services, by:

- accurately characterizing the level and quality of the amenities and services they offer in order to identify possible shortcomings;
- identification within the framework of partnerships between large cities and regions of medium-sized cities that play this balancing role;
- defining principles to ensure, with the necessary modularity, a minimum base of amenities and services in these cities, especially with regard to medical care, secondary education, higher education, etc.;
- initiating a joint investment plan between the State and local territorial authorities to ensure this minimum base and ensure its effective management in the long term.

4. Strengthening territorial analysis

The work carried out highlighted the importance and complexity of objectifying the dynamics and phenomena occurring in the territories in real time. From this point of view, it seems necessary to facilitate the development of an analysis of current phenomena and their potential changes in the territories. To do this, we recommend improving territorial knowledge in support of decision-making by:

- generalizing the continuous provision of spatial data and indicators (indicators of intra-territorial and inter-territorial flows, distribution indicators that consider population mobility, etc.),
- In the context of data openness, it would be useful to analyze the area of operational data useful for territorial analysis (telecommunications, mobility, real estate, territorial projects, etc.). In the case of projects supported by public authorities, the possibility of conditionality of financing by data openness could be considered; collecting this data at the national level and providing access to it in an open data format to facilitate the development of common diagnostic data;
- Creating opportunities for dialogue between various public and private actors at the regional and national levels to enhance knowledge about the Territory and a common vision. In this regard, it is proposed to expand the competence of the regional level in the field of coordination and exchange of territorial knowledge in accordance with the powers granted by law in relation to territorial planning and management of location-based data platforms;
- to facilitate the assessment of academic research activities and initiatives in the field of practical research in the territorial sphere, as well as their rapprochement with public entities and private individuals.

5. Developing forward-looking vision and engineering capabilities in medium-sized cities

In order to anticipate the upcoming transition processes, it seems advisable to generalize the construction of common perspective visions in the Territories, providing them with opportunities for action. To do this, we recommend developing long-term analysis capabilities and consolidating engineering developments in medium-sized cities by:

- facilitating local exercises to analyze territorial dynamics and prospects, with the participation of all stakeholders, at the stage of preparing regulatory documents (urban planning documents, territorial climate-air-energy plans, regional planning schemes, sustainable development and territorial equality, regional economic development schemes, etc.) so that they can stimulate these approaches;
- initiating national reflections on this topic from the point of view of promoting the "professional development" of communities and their operators;
- stimulating and supporting the exchange of experience and even the sharing of engineering developments, especially based on local initiatives.

In this context, an updated approach to public management of the urbanization process could be considered with the help of the recommendations presented, as well as become the subject of further scientific research.

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Қазақстан Республикасында және шетелде урбанизация процестерін дамыту: салыстырмалы талдау

Аннотация

Мақсаты: Зерттеудің мақсаты-жүз жылға жуық кезеңнің хронологиялық шеңберін қамтитын Қазақстан мен Ресейдегі урбанизацияның даму процестерін салыстырмалы талдау.

Әдісі: нақтылау және абстракция; ретроспективті талдау және жіктеу; салыстырмалы талдау; сипаттамалық әдіс; ғылыми талдау мен синтездің статистикалық әдістері мен әдістері.

Қорытынды: Зерттеудің негізгі нәтижелері келесі тұжырымдарда жинақталған:

- 1980-ші жылдардағы ерекше демографиялық құрылым 1990-шы жылдардағы экономикалық қайта құрумен нығайтылды және 21-ші ғасырдағы Ресей мен бұрынғы КСРО елдеріндегі ең маңызды проблеманы тудырды: демографиялық құлдырау және қала халқының азаюы.

- Қазіргі уақытта бұрынғы социалистік қалалардың дамуы негізінен нарықтық күштермен және демократиялық жолмен сайланған үкіметтермен анықталады. Дегенмен, олар толық дамыған капиталистік қалалар емес.

- Ресей мен Қазақстанның урбанизациясының негізгі ұқсастығы федералды және Республикалық маңызы бар ең дамыған ірі қалалар (Мәскеу және Санкт-Петербург, Алматы және Астана) мен артта қалған орта және шағын қалалар арасындағы алшақтық болып табылады.

- Ресей мен Қазақстанда орта және шағын қалалар көбінесе мамандандырылған және әртараптандырылмаған экономикамен сипатталады.

Тұжырымдама: Ресей мен Қазақстанның орта және шағын қалаларын дамыту негізгі проблемаларға тап болады: қаржыландырудың болмауы және/немесе тиімсіз пайдалану; орталықсыздандыру үшін кедергілер; жеткіліксіз тиімді Нормативтік-құқықтық база және стандарттардың болмауы немесе оларды орнықты және экологиялық дамуға қатысты тиімсіз енгізу.

Түйін сөздер: Мемлекеттік басқару, урбанизация, жаһандану, тұрақты даму, қалалар, мегаполистер.

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Развитие процессов урбанизации в Республике Казахстан и за рубежом: сравнительный анализ

Аннотация

Цель: Целью исследования является сравнительный анализ процессов развития урбанизации в Казахстане и в России, охватывающий хронологические рамки почти столетнего периода.

Методы: конкретизация и абстракция; ретроспективный анализ и классификация; сравнительный анализ; описательный метод; статистические методы и методы научного анализа и синтеза.

Результаты: Ключевые результаты исследования обобщены в следующих выводах:

- Особая демографическая структура 1980-х годов была усилена экономической перестройкой 1990-х годов и породила, вероятно, самую важную проблему 21 века в России и странах бывшего СССР: демографический спад и сокращение городского населения.

- В настоящее время развитие бывших социалистических городов в значительной степени определяется рыночными силами и демократически избранными правительствами. Однако они также не являются полностью развитыми капиталистическими городами.

- Основным сходством урбанизации России и Казахстана являются разрыв между наиболее развитыми крупнейшими городами федерального и республиканского значения и отстающими средними и малыми городами.

- В России и Казахстане средние и малые города часто характеризуются специализированной и менее диверсифицированной экономикой.

Выводы: Развитие средних и малых городов России и Казахстана сталкиваются с основными проблемами: недостаток финансирования и/или неэффективное использование; барьеры для децентрализации; недостаточно эффективная нормативно-правовая база и отсутствие стандартов или их малоэффективное внедрение касательно устойчивого и экологичного развития.

Ключевые слова: государственное управление, урбанизация, глобализация, устойчивое развитие, города, мегаполисы.

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Features of the regional tourism product promotion of Mangystau region in the context of the “Experience Economy” development

Abstract

Object: The main goal of this study is to identify the specifics of promoting the regional tourism product of the Mangystau region in the context of the influence of the “Experience Economy” on it. The hypothesis of this study is that the level of development of infrastructure and, in particular, accommodation facilities is not a determining factor in the influx of incoming tourists (non-residents).

Methods: To achieve this goal, the following scientific methods were used: generalization method, structural analysis, quantitative analysis, graphical method.

Findings: It is known that the tourist product largely consists of intangible services, the use value and value of which is measured mainly by emotions, new sensations and impressions among tourists. The main source of added value in tourism, according to the concept of the “Economy of Experiences,” today is not just tourist services, but positive impressions and feelings of consumers. In particular, certain dimensions of the experience economy are hypothesized to shape perceptions of well-being. In addition, it is assumed that the perception of well-being can lead to two managerial outcomes: brand identification and intentions to return to it, which will shape the promotion strategy of the tourism product.

Conclusions: In the context of growing internal and external competition in the tourism services market, on the one hand, and the increasing spread of the concept of the “Experience Economy”, its influence on the promotion of RTP, it is important to diversify promotion channels in terms of strengthening their emotional component.

Keywords: regional tourism product, marketing tools, Experience Economy, Mangystau region, structural analysis, quantitative analysis, graphical method.

Introduction

The Mangystau region has great opportunities for the development of various types of tourism. According to JSC NC Kazakhtourism, the regional tourism product of Mangystau today can be formed on the basis of beach holidays, health tourism, ecotourism, caravanning tourism, and jeep tourism. The most important components of the regional tourism product of the region are sacred and cultural tourism, for the development of which there is a large number of sacred places, historical and cultural monuments: 362 holy places and 13,000 historical monuments that are under the protection of states. Back in 2018 Mangystau has been designated as a priority tourist area with a potential of 750,000 tourists per year. In the tourism sector, 13 projects are planned for the period 2021–2025, creating more than 2,000 job places. By 2025, the flow of tourists is expected to increase 4.6 times or up to 740 thousand due to an increase in the number of accommodation places, recreation centres development in resort areas of the region, expansion of the list and improvement of the quality of services provided (www.invest.kazakhstan.travel, 2023).

The relevance of the topic lies in the fact that this object of study, as a developing destination, needs to create its own strategic and systematic approach to decision-making for the development and promotion of a regional tourism product. At the same time, the tourism potential of the Mangystau region has not yet been fully realized. It seems that the reasons for this are related not only to the insufficiency of tourism infrastructure and staffing. This is, first of all, low awareness among potential consumers, which is due, in our opinion, to the lack of a scientifically based approach to the selection and use of marketing tools to promote a tourist region. This, in turn, requires clarification of the specifics of promoting the regional tourism product of Mangystau.

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The purpose of this article is to identify journal articles on the consumption of tourism products through the lens of the Experience Economy that are likely to report interdisciplinary research that will further clarify the most accurate marketing tool to promote them.

The novelty of the article is the contribution of the authors in identifying structured and systematic channels and tools for promoting a regional tourism product through the prism of the Experience Economy.

It is known that the tourism product largely consists of intangible services, the use value and value of which is measured mainly by emotions, new sensations and impressions among tourists. In the conditions of a highly competitive tourism market, the presence of many standardized tour packages, and the interchangeability of tourism products, including regional ones, the choice of consumers will be for services that, already in the process of their promotion, promise clients future positive emotions. Obviously, local Destination Management Organizations (DMOs) should take into account the fact that the main source of added value in tourism, according to the concept of the “Experience Economy”. Today it is not just tourist services, it is also positive impressions and feelings of consumers. These aspects require serious theoretical understanding.

Literature Review

Recently, more and more works have begun to appear in the scientific literature devoted to the study of marketing tools for promoting tourism products and tourist destinations. In particular, among the fundamental works of scientists on the problems of using marketing tools in promoting tourism products, one can note Kotler P. (2014), Durovich A. (Durovich et al, 2005), Lankar R. (Lankar et al, 1993). However, special studies on the promotion of regional tourism products have not yet received adequate coverage in the scientific literature.

At the turn of the 20th-21st centuries, a new vision of economic development began to take shape. They even began to talk about a new stage of world economic development — the “Experience Economy”. This concept was first proposed by American marketers Joseph Pine II and James Gilmore (1999; 2011). Nowadays, people are surrounded by an intangible economy in which beauty, entertainment, enjoyment, and spiritual enrichment are all economically valuable (Murtazina, 2020).

The development and study of the concept “Experience Economy”, within the framework of which the modern sphere of tourism is developing, was also carried out by Nijs D. (2003) and Morgan M., Elbe J. & Curiel J. (2006; 2009). They define the key elements of the concept as a view of consumer behaviour on which administrative management should base its strategic decisions.

It is necessary to determine the main aspects of the development and application of innovations in the tourism business to develop the experience economy. The authors of this study cite the differences between the experience economy and the economy of services, as a new direction that involves organizing and improving creative activity in business (Novichkov et al., 2018). By incorporating the experience economy's tenets into the travel and tourism sector, the multiplier effects of tourism can reduce the gap in income between subjects and increase the competitiveness of domestic travel agencies. Moreover, it will lead to the non-resource sector development and strengthen interregional ties between subjects (Pogorleckij, 2021; Lebedeva, 2023). A modern consumer's decision to buy a product or service is increasingly influenced by the emotions and perceptions that will accompany the purchase (Lygina et al., 2019; 2020). The experience economy creates an emotional and sensory colouring of cultural phenomena, which receives the most complete expression in a person's general satisfaction with his own existence (Chernikov, 2020). Furthermore, the paper examined researches based on the experience economy of Kazakhstan and contribution of the local population in developing the territory's tourism potential (Denisov et al., 2009; 2020; Dautova, 2018).

It is highlight the contribution of scientists from the Netherlands and Great Britain, Yeoman and McMahon-Beattie, who in 2019 identified the key trends characteristic of the tourism and hospitality sector within the framework of the “Experience Economy” concept (Yeoman & McMahon-Beattie, 2019). Among them, the most characteristic and important for Kazakhstan are the following:

- the desire to receive exclusive experiences that are more valuable to tourists in terms of acquiring unique experiences and skills, increasing cultural awareness, and ultimately realizing deeper psychic ambitions;
- rejection of mass-produced goods in favour of authentic products and services that have a clear connection with the place, time or culture of the destination in which the tourist is located;
- the emergence of “hybrid” tourists and the gradual abandonment of segmentation based on the income level of consumers of tourism services, associated with the digitalization of the tourism and hospitality sec-

tor, and the emergence of the opportunity to refuse the services of travel agencies in favour of more expensive experiences;

- a shift in markers of success from material to empirical indicators, since the main souvenir remaining with the tourist are memories, impressions received and emotions experienced.

It is obvious that when developing programs to promote tourism services in the region, the above trends in the field of tourism, formed as a result of the influence of the “Experience Economy,” should be taken into account.

Furthermore, the authors note certain changes in the development of the “Experience Economy” concept itself during the pandemic and post-pandemic period. In particular, this is the digitalization of tourist display objects, the development of virtual tourism, the introduction of augmented and virtual reality technologies, which literally contribute to immersion in another reality (one of the areas of impression). One of these studies was conducted by scientists from the University of Delhi, Gurleen Kaur and Chanpreet Kaur, who outlined new vectors for the development of the impression paradigm (2020). One of the main innovations that COVID-19 has brought is the inclusion of more and more companies and consumers in the modern digital fabric. Antropov V. outlined such features as the widespread dissemination of impressions with the help of modern technologies and the individualization of created impressions, i.e. the need to adapt them to specific people each time (Antropov, 2022).

Among the works of Kazakhstani scientists in the field of tourism in Mangystau, one can highlight the works of Mamutova K., Smykova M., Nikiforova N. (2020). Their research assessed consumer preferences by types of attractions in Mangystau.

Thus, the content analysis showed that most scientists often derive the specifics of promoting a tourism product from its immateriality, intangibility, and complexity. In recent years, research into the specifics of promoting tourism products has begun to take into account the influence of the “Experience Economy” paradigm. Agreeing with this position, it is worth noting that the regional tourism product is an even more complex structure and its promotion is of a very specific nature. In addition, in a competitive market, it is not so much the product itself that should be promoted, but the impressions and emotions that a tourist can receive from a future trip. Thus, tourism service providers have an increased chance of a successful sale.

Based on the literature review, there are highlighted the following features of promoting a regional tourism product (RTP):

1. Goals in the field of promoting RTP must be interconnected with the goals of the socio-economic development of the region.

2. The choice of methods and tools for promoting RTP should be based on promotion goals.

3. Promotion of RTP should be aimed at a specific target audience and based on preliminary market segmentation.

4. It is necessary to select in advance not only the channels of communication with target audiences, but also to predict what their response will be, what impressions they expect to receive from the trip and how feedback will be provided to them.

5. It is necessary to demonstrate to customers what impressions they can get from purchasing a tourism product. Considering that the RTP is moving forward, these impressions should be comprehensive.

6. The selection and use of marketing tools for promoting RTP should be differentiated from the point of view of the geography of incoming tourist flows.

7. It is necessary to take into account the stages of the RTP life cycle when choosing certain marketing promotion tools.

8. The intangibility of most tourist services implies the need for their visualization, materialization, reflecting objects of tourist interest as fully as possible and reducing the degree of uncertainty for tourists (for example, demonstrating a virtual trip to a destination using the Internet and technologies, such as augmented reality, etc.).

9. In conditions of “distrust” in direct advertising, it is advisable to use traditional and proactive content marketing tools to promote RTP. Thus, the importance of product placement increases.

10. Demonstrating authenticity, genuineness, the rich culture of the region and the intensity of the experience is essential to building a distinctive image and brand of the RTP.

11. Tourist information centres (TICs) play an important role in promoting the regional tourism product and facilitating services for tourists in destinations.

Methods

The main goal of this study is to identify the specifics of promoting the regional tourism product of the Mangystau region in the context of the influence of the “Experience Economy” on it.

The hypothesis of this study is that the level of development of infrastructure and, in particular, accommodation facilities is not a determining factor in the influx of incoming tourists (non-residents).

To achieve this goal, the following scientific methods were used: generalization method, structural analysis, quantitative analysis, graphical method. During the preparation of a theoretical review of scientific works on this issue, the generalization method was used. A generalization is a form of abstraction technique whereby common characteristics of particular cases are formulated as general concepts. Additionally, the researchers evaluated factors related to competitiveness.

To identify the potential for tourism development in Mangystau, a quantitative analysis of statistical indicators was used. The source of statistical data was the official website <https://stat.gov.kz/>. Sampling and analysis of Big Data was made from the number of tourist flows and related infrastructure. To substantiate the weak dependence of incoming tourist flows on the sufficiency of infrastructure, the method of correlation analysis was used.

Results and discussion

Mangystau has great potential for the development of various types of tourism. Moreover, in recent years, there can be observed generally positive dynamics in the main indicators of tourism. Mangystau region was visited by more than 310 thousand tourists from abroad and other regions of the country in 2022. This is 6 % more than in the previous year. The volume of services provided in the field of tourism in the region amounted to 11.5 billion tenge. Since the beginning of the year, the number of passengers transported by Aktau International Airport has increased by 14 % compared to the same period in 2022, reaching 407,490 passengers. As part of the development of resort areas, four projects were implemented by local investors in 2022. As a result, more than 80 new job places were created, attracting more than 1.1 billion tenge of investments: construction of the Sartas Visitor Centre, Recreation Centre "Flamingo Resort", Glamping Teniz Village, Recreation Centre "AURA" (www.lada.kz, 2023).

Over the past five years, there can be noted the growth of all indicators presented in Table 1.

Table 1. Dynamics of tourism development indicators in Mangystau region

Indicator	2018	2019	2020	2021	2022
Number of placements, units	82	92	91	97	99
Number of visitors served at accommodation sites, people.	240 798	222 539	160 504	225 558	310 217
Visitors served with accommodation for inbound tourism (non-residents), persons.	28 720	24632	8 356	11 977	41338
Volume of services provided by placements, thousand tenge	4 923 660,8	5 136 245,4	4 378 018,1	5 717 236,5	11 459 380,3

Note — Compiled by the authors based on data <https://stat.gov.kz/>

Moreover, tourism in the region managed not only to recover to the values of the pre-pandemic period, but also to significantly increase them. Thus, as a result of the development of the accommodation infrastructure and the growth in the number of visitors, the volume of services provided by accommodation places more than doubled from 2019 to 2022 (by 123.1 %). At the same time, Mangystau’s contribution to the tourism development in the country remains modest in comparison with other places, including those classified as priority tourist areas.

In terms of the number of visitors served in accommodation places among the regions of the Republic of Kazakhstan, Mangystau still ranks only 8th after Almaty, Astana, Shymkent, Akmola region, East Kazakhstan region, Almaty and Zhetysu regions. In terms of the number of accommodation places, despite their annual increase, the region occupies an extremely low position — 18th place out of 20 regions, which to a certain extent negatively affects the region’s ability to attract incoming tourists. However, there is not always a direct relationship between the performance of accommodation sites and tourist flows.

Figure 1 shows that in 2019 the number of accommodation places increased by 12.2 % compared to 2018, while the number of visitors served in accommodation places, on the contrary, decreased by 7.6 %, including an even greater reduction in inbound tourism — by 14.2 %. In 2019, systemic changes were made

to develop the industry, which were associated with the approval of the State Industry Development Program for 2019–2025.

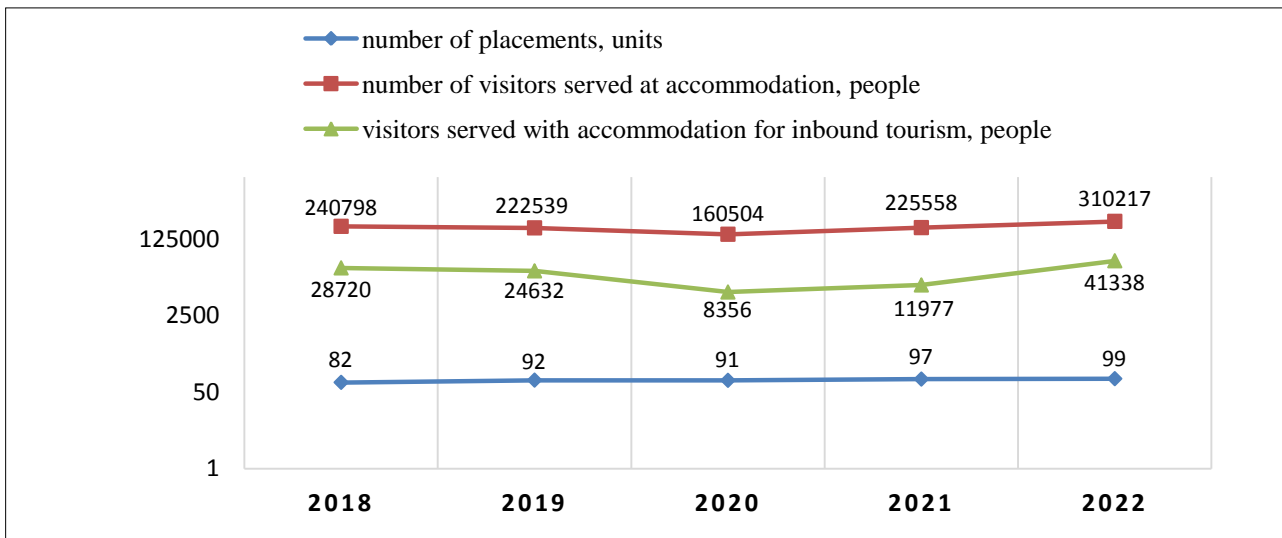


Figure 1. Number of visitors served at accommodation sites and the number of visitors served at outbound tourism accommodation sites

Note — Compiled by the authors based on data <https://stat.gov.kz/>

This explains the increase in the number of accommodation places in the Top-10 tourist regions. However, there was a positive impetus for strategic activities only in 2022.

It seems that the growth of tourist flows today is ensured in Mangystau due to “wild” tourism. Today, visitors, especially foreign ones, are drawn to places with untouched nature and interesting landscapes. Here they can be alone with themselves, experience new sensations and a whole kaleidoscope of impressions.



Figure 2. Top-10 tourist attractions in Mangystau region

Note — Compiled by the authors based on data <https://www.tripadvisor.ru>

It is no coincidence that adherents of wild tourism note that you can come to Mangystau and see those landscapes for which some people have to travel around several countries. Reviews left on TripAdvisor indicate that tourists are attracted by the pristine nature, the “cosmic” landscape, and their sensations are equal to that of having visited Mars. Therefore, among the 31 attractions of Mangystau noted by tourists on the website in 2022, the Top-10 include mostly natural objects (Fig. 2).

Tourists note on the website that visiting these places provides an opportunity to immerse oneself and the depth of the area, awakens one to cosmic consciousness or causes emotional delight, such as Bozjyra. This once again confirms that tourists come to Mangystau for new positive experiences.

The above confirms the idea that the creation of new accommodation places, the construction of hotels and sanatoriums in itself will not ensure an influx of tourists, especially foreign ones. There are also lovers of “wild” tourism. It is necessary to correctly select promotion tools and their targeted use, taking into account the target audience and the specifics of the regional tourism product.

Tourists come to our regions in search of authenticity, and why not already at the stages of promoting a regional tourism product not demonstrate the nomadic and semi-nomadic lifestyle of the local population using modern digital technologies. The same can be said with regard to the natural landscape of the area. Mangystau region is precisely a multifaceted region in terms of tourism and recreational opportunities. This region has preserved the traditions of culture and mentality of the Kazakh people, which are reflected in the existing historical and cultural attractions.

One of the key problems hindering the realization of the region’s tourism potential is the lack of scientifically based programs for promoting the regional tourism product, taking into account all its features.

Other reasons that reduce the effectiveness of RTP promotion programs are:

- limited and lack of diversity in the use of marketing tools to create awareness of services and preferences among potential tourists both on the part of JSC NC “Kazakhtourism” and local authorities;
- lack of clear market segmentation and positioning of the components of the regional tourism product;
- uncertainty regarding the target audience and, as a consequence, the “blurring” of marketing activities to promote RTP;
- weak involvement of opinion leaders, local communities, experts, social networks for active promotion;
- weak cooperation or its complete absence with other regions in matters of joint promotion of RTP to foreign markets.

Costly methods and promotion tools are often used (participation in international exhibitions, events, etc.), which are more effective in promoting RTP to corporate clients rather than to end consumers — tourists.

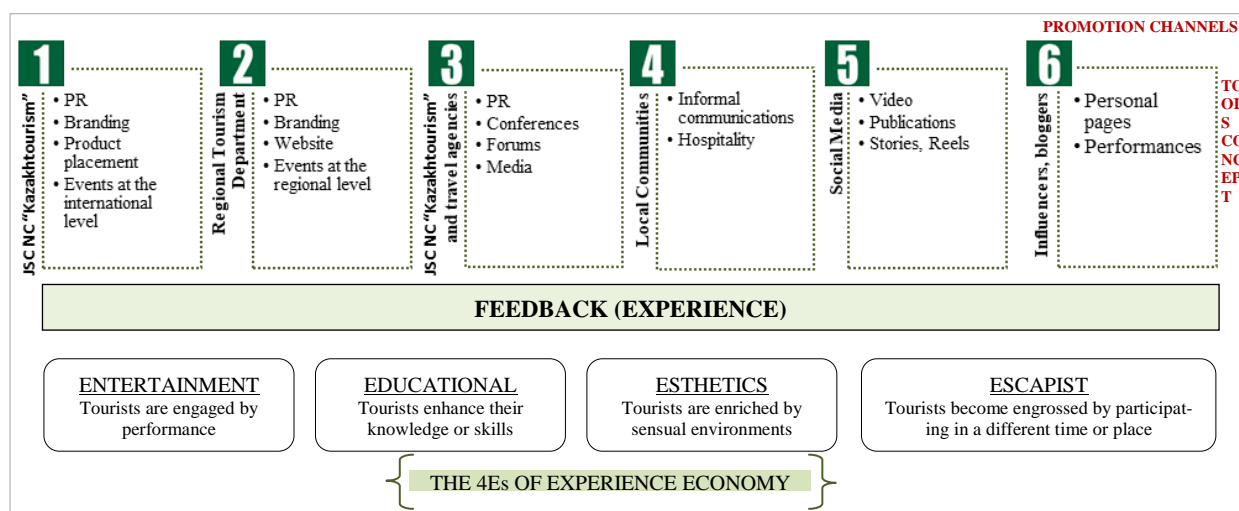


Figure 3. Main channels and tools for promoting RTP Mangystau

Note — Compiled by the authors based on scheme of Saayman & Merwe (2014)

In the context of growing internal and external competition in the tourism services market, on the one hand, and the increasing spread of the concept of the “Experience Economy”, its influence on the promotion of RTP, it is important to diversify promotion channels in terms of strengthening their emotional component. In particular, impressions of a regional tourism product can be promoted through social networks, where bloggers, influencers, and representatives of local communities can share their positive feelings from the trip in stories, reels, etc. Figure 3 illustrates the channels and the main tools for promoting the Mangystau RTP.

It seems that such diversification of channels and marketing promotion tools will make it possible to more effectively build communications with both corporate clients and end consumers. Moreover, tourists can be informed in advance in more attractive and accessible forms about the “range” of sensations, impressions and emotions that they can receive as a result of visiting the region.

All over the world, the role of local communities in popularizing and promoting their destinations is now growing. The state and local authorities should encourage the development of networks and partnerships based on local communities and direct them in the right direction in order to enhance the promotion of the regional tourism product.

Conclusion

Analysis of the problems and features of promoting the regional tourism product of the Mangystau region allowed us to draw the following conclusions and propose recommendations.

1. The RTP has a complex structure due to the multi-composition of its elements and the relationship between them. This affects the features of its promotion.

2. Undoubtedly, the specifics of RTP promotion should be taken into account when choosing its tools. Perhaps, here we should not be talking about the use of promotion tools for the entire RTP, but about their differentiated application in relation to certain elements of a given product.

3. Successful promotion of the Mangystau RTP to the external (international) market can be facilitated by cooperation with other countries of the Caspian region and other regions of the Republic of Kazakhstan. This could be co-branding, the creation of a single Tourist Information Centre, holding joint exhibitions and fairs (for example, souvenirs, handicraft products), etc.

4. It is necessary to diversify channels and promotion tools for more successful and rapid promotion of RTP, the formation of its positive image and preferences among internal and, especially, external visitors to the destination.

Thus, taking into account the features and problems in promoting the RTP of the Mangystau region will contribute to the formation of a more balanced and scientifically based approach to the selection of marketing tools.

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«Әсер экономикасын» дамыту контекстінде Маңғыстаудың аймақтық туристік өнімін ілгерілету ерекшеліктері.

Аңдатпа

Мақсаты: Бұл зерттеудің негізгі мақсаты Маңғыстау облысының аймақтық туристік өнімін ілгерілетудегі ерекшеліктерін «Әсер экономикасының» ықпалы контекстінде анықтау болып табылады. Бұл зерттеудің гипотезасы инфрақұрылымның және, атап айтқанда, орналастыру орындарының даму деңгейі келуші туристер (резидент еместер) ағынының анықтаушы факторы болып табылмайды.

Әдісі: Бұл мақсатқа жету үшін келесі ғылыми әдістер қолданылды: жалпылау әдісі, құрылымдық талдау, сандық талдау, графикалық әдіс.

Қорытынды: Туристік өнім көбінесе материалдық емес қызметтерден тұратыны белгілі. Оларды пайдалану құны мен құндылығы негізінен туристер арасындағы эмоциялармен және әсерлермен өлшенеді. «Әсер экономикасы» концепциясы бойынша туризмдегі қосымша құнның негізгі көзі бүгінгі таңда тек туристік қызметтер емес, тұтынушылардың жағымды әсерлері болып табылады. Атап айтқанда, әсер экономикасының өлшемдері жағымды әлеуметтік ортаны қалыптастыруға әсер етуші күш болып табылады. Сонымен қатар, сондай ортаны қабылдау екі басқарушылық нәтижеге әкелуі мүмкін деп болжанады: туристік брендті қалыптастыру және оған қайта оралу ниеті. Бұл туристік өнімді ілгерілетудегі стратегияны қалыптастыратын тетік.

Тұжырымдама: Туристік қызметтер нарығындағы ішкі және сыртқы бәсекелестіктің күшеюі және «Әсер экономикасы» концепциясының ауқымдылығы, аймақтық туристік өнімді ілгерілету арналары көмегімен олардың эмоционалдылығын күшейту маңызды.

Кілт сөздер: аймақтық туристік өнім, маркетинг құралдары, әсер экономикасы, Маңғыстау облысы, құрылымдық талдау, сандық талдау, графиктік әдіс.

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Особенности продвижения регионального туристского продукта Мангыстау в контексте развития «Экономики впечатлений»

Аннотация

Цель: Основной целью данного исследования является выявление специфики продвижения регионального туристского продукта Мангыстауской области в контексте влияния на него «экономики впечатлений». Гипотеза данного исследования состоит в том, что уровень развития инфраструктуры и, в частности, средств размещения, не является определяющим фактором притока въездных туристов (нерезидентов).

Методы: Для достижения данной цели были использованы следующие научные методы: метод обобщения, структурный анализ, количественный анализ, графический метод.

Результаты: Известно, что туристский продукт по большей части состоит из нематериальных услуг, потребительная стоимость и ценность которых измеряется, главным образом, эмоциями, новыми ощущениями и впечатлениями у туристов. Основным источником добавленной стоимости в туризме, согласно концепции «Экономики впечатлений», становятся сегодня не просто туристские услуги, а положительные впечатления и ощущения потребителей. В частности, предполагается, что на формирование восприятия благополучия влияют определенные измерения экономики впечатлений. Кроме того, предполагается, что восприятие благополучия может привести к двум управленческим результатам: идентификации бренда и намерениям вернуться к нему, что и будет формировать стратегию продвижения турпродукта.

Выводы: В условиях растущей внутренней и внешней конкуренции на рынке туристских услуг и все большего распространения концепции «Экономики впечатлений», ее влияния на продвижение РТП, важно диверсифицировать каналы продвижения в плане усиления их эмоциональной составляющей.

Ключевые слова: региональный туристический продукт, маркетинговые инструменты, экономика впечатлений, Мангыстауская область, структурный анализ, количественный анализ, графический метод.

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Analyzing the Relationship Between Urbanization and Greenhouse Gas Emissions: The Case of Kazakhstan

Abstract

Subject: The study analyses the relationship between urbanization and greenhouse gas (GHG) emissions in Kazakhstan, looking at the impact of urban growth on GHG emissions and suggesting pathways for their sustainable development.

Methods: The study relies on national statistics and utilizes a hybrid method that integrates the analysis data analysis with qualitative insights. In this study, we used an algorithm that includes three key steps: (1) aggregating data from various sources for the period 2015–2021; (2) using data visualization tools to construct graphs; and (3) constructing mind maps to visualize the consequences of urbanization for air quality.

Findings: Our results show that urbanization in Kazakhstan is closely linked to a growth in GHG, driven by industrial development, energy consumption, and transportation. The analysis highlights the importance of considering ecological, economic, and social aspects of balanced development urban growth and reducing environmental impacts.

Conclusions: The study also identifies opportunities to reduce emissions through strategic urban planning, green infrastructure development, and clean technology adoption. The study contributes to the current debate on sustainable urbanization by offering insights that can inform urban management policies and practices in Kazakhstan and similar contexts worldwide.

Keywords: Urbanization, greenhouse gas emissions, Kazakhstan, sustainable development, economic factors, social factors, environmental factors, urban planning, energy consumption, policy implications.

Introduction

Urbanization is a transformative force on a global scale, changing the landscape of societies, economies, and the environment. As a marker of economic development and social evolution, exponential urban growth presents significant environmental challenges, and GHG emissions have notably risen. The World Bank reports that the country is undergoing significant urbanization, with the proportion of urban residents growing from 51 % in 2000 to over 58 % in 2020. This rapid expansion of urban areas is primarily driven by its growing economy, especially in the petroleum and energy industries, which contributes approximately 20 % to GDP and accounts for more than 60 % of its export revenues.

Kazakhstan is the world's ninth-largest country by area and has significant fossil fuel reserves, making it a key player in the global energy market. However, this economic growth has an environmental cost. According to the International Energy Agency (IEA), from 1990 to 2019, Kazakhstan's GHG emissions have increased by 35 %, placing the country on the list of the world's top 25 issuers. Approximately half of all GHG emissions in the country come from the industrial sector, primarily the oil and gas production sector. In contrast, emissions from the transportation sector have increased by 70 % over the last twenty years., reflecting the growing need for urban mobility.

Moreover, Kazakhstan's energy infrastructure, heavily dependent on coal, which accounts for about 70 % of its energy mix, exacerbates its environmental impact. This dependence contributes significantly to greenhouse gas emissions and poses challenges for urban air quality and public health. The capital, Astana, and the country's largest city, Almaty, have seen a marked deterioration in air quality, with levels of particulate matter often exceeding WHO recommendations.

Analysis of urbanization and GHG emissions in Kazakhstan reveals a complex interplay of economic growth, energy policies and urban development strategies. With per capita GHG emissions of about 15 metric tons of CO₂ equivalent, one of the highest among Central Asian countries, Kazakhstan must shift to more

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sustainable urban and energy development models. It can be highlighted that Kazakhstan has implemented measures aimed at reducing greenhouse gas emissions and reducing the carbon footprint. In particular, the Strategic Development Plan until 2025 was adopted, establishing a 15 % reduction in emissions and an increase in the share of renewable energy sources in electricity production to 10 %.

Therefore, this paper aims to assess the economic, social, and environmental factors affecting urbanization and greenhouse gas emissions in the regional context. Thus, the main contribution of this work is to identify ways of sustainable urban development, considering the goals of environmental sustainability and climate change.

The results of this study indicate the need for an interdisciplinary approach to solving the relationship between urbanization and greenhouse gas emissions. This approach should consider the importance of the transition to low-carbon and energy-saving technologies and support innovation in the green economy. Combining various aspects of research, this paper will solve the problem of urbanized regions of Kazakhstan, reduce the negative impact on the climate, and bring the country closer to fulfilling international environmental obligations.

Literature review

The processes of urbanization and economic development have recently been critical spatial factors. Demographic trends, changing urban infrastructure, and demographic settlement pose many challenges to sustainable growth. In addition, urbanization is a complex system influenced by natural, geographical, transport, economic, and social conditions. Thus, urbanization causes an increase in the role of cities, the number of urban residents, an increase in investment and the growth of agglomeration zones.

Economic factors are vital in establishing the relationship between urbanization and greenhouse gas emissions. Studies show that energy consumption often increases as economic activity grows in cities. Urbanization is accompanied by the construction and expansion of industrial zones, which increases the use of high-carbon energy sources, such as coal and oil (Seto et al., 2016). Effective economic activity management in cities and the transition to clean energy sources become important strategic tasks for reducing greenhouse gas emissions (Kennedy et al., 2010).

Urban systems are characterized by significant indirect carbon flows that transcend administrative and agglomeration boundaries, creating important policy challenges. This emphasizes the need for future research to take an integrated systems approach that integrates all sources, sinks, infrastructure, and technological capabilities for effective carbon management (Shobhakar, 2010).

Urban carbon emissions, which contribute significantly to global warming, depend on multiple factors, including urban form. Studying the relationship between urban form and carbon emissions, which can be optimized through architecture and urban planning, is important in supporting low-carbon urban development (Zhu, Hu, 2023).

Ding, Y., Yang, Q., and Cao, L. analyzed the connection between urbanization and carbon emissions in 182 prefecture-level cities in China during the period from 2001 to 2010, with a focus on economic growth, industrial transformation, technological advancements, public services, demographic shifts, and changes in both urban and natural environments (Ding et al., 2021). It highlights the distinct effects of social processes on carbon emissions during urbanization, including enhancements in public services reflected by advancements in education and cultural development. Khan, H., Chen, T., Bibi, R., and Khan, I. explored the influence of urbanization and institutional quality on environmental quality in Belt and Road Initiative (BRI) countries from 2002 to 2019. They discovered that urbanization initially raises carbon dioxide emissions but may result in reductions after surpassing a certain threshold. Education and government effectiveness are also discussed in relation to carbon emissions (Khan et al., 2023).

This study explores how geophysical and technical factors, including urban design and waste processing, determine greenhouse gas emissions attributable to cities. Kennedy, C., Steinberger, J., Gasson, B., Hansen, Y., Hillman, T., Havránek, M., Pataki, D., Phdungsilp, A., Ramaswami, A., and Mendez, G. examine the impact of public transit and personal income on emissions, highlighting the importance of including upstream emissions from fuels (Kennedy et al., 2009).

This paper investigates the relationship between land management and GHG emissions and presents a causal framework linking settlement patterns to emissions through landscape impacts, infrastructure impacts, and buildings. Clinton, J. Andrews suggests that per-capita carbon dioxide emissions vary widely across municipalities and are influenced by population density, transit options, and the balance between residential and commercial buildings (Clinton, 2008).

Feiock, R. and Bae, J. investigate the factors that account for the local adoption of climate protection at the city level, focusing on the role of political and institutional factors and various public entrepreneurs in adopting GHG inventories. It finds that elected mayors and civic entrepreneurs promote carbon reduction in the larger community, while managers and bureaucratic entrepreneurs focus on the carbon emissions of governmental organizations (Feiock, Bae, 2011).

Urbanization influences carbon emissions through economic growth, energy efficiency, and end-use energy consumption patterns. The authors also examine the multilevel impact of urbanization on carbon emissions and analyze policy measures aimed at reducing emissions through the agglomeration effect of urbanization, which is important for government decision-makers (Wang et al., 2021).

The authors' main findings indicate an increase in greenhouse gas emissions, an intensification of the urban heat island effect, loss of green spaces, and disruption of local biodiversity. However, their study also showed that urban areas can become catalysts for sustainable solutions if policy, innovation and active community participation are combined (Bera et al., 2023).

Although many studies have examined the impact of urbanization on greenhouse gas emissions in recent years, the existing body of research on this topic remains poorly understood. For example, some studies show that social factors such as income inequality, population structure, and size can influence the relationship between urbanization and greenhouse gas emissions (Zhu, Peng, 2012).

Recent studies contribute to understanding this intricate relationship from the different vantage points. Raihan A. and Tuspekova A. analyzed the complex interactions between economic activity, including urbanization processes, and their impact on greenhouse gas emissions in Kazakhstan. They emphasize the vital role of industrial and urban growth in environmental degradation. This research underscores the necessity of considering the broader economic context in efforts to mitigate GHG emissions (Raihan, Tuspekova, 2022).

In addition, Aitkazina M.A., Nurmaganbet E., Syrlydzyzy S., Koibakova S., Zhidebaeva A.E., and Aubakirov M.Z. emphasized the contribution of the agricultural sector to reducing greenhouse gas emissions. In particular, their research focuses on approaches to improving the use of green technologies and the introduction of sustainable agriculture practices. Their work is complemented by research on the impact of urbanization on the environment, which covers agricultural practices in urban areas and on their periphery (Aitkazina et al., 2019). In turn, based on quantitative Kazakhstan data, Tleppaev and co-authors investigated the relationship between energy consumption, urban growth, and sustainable development indicators. Their article focuses on energy infrastructure and its potential to reduce greenhouse gas emissions, especially in large urban agglomerations. An important area is the development of institutional approaches and the formulation of practical recommendations for programs for the rational use of energy resources, which contributes to reducing greenhouse gas emissions (Tleppaev et al., 2023).

At the same time, despite a significant number of scientific papers on this topic, a complex analysis of the problem has not yet been carried out, and multifunctional indicators have not been developed. Issues related to disclosing the relationship between urbanization and greenhouse gas emissions remain poorly understood. Generally, for this reason, it is crucial to develop a conceptual framework in this area, especially considering interdisciplinary approaches that will be aimed at using green technologies in urban development. Moreover, the development of such a fundamental basis will not only reduce greenhouse gas emissions but also contribute to the sustainable growth of large megacities experiencing unique problems. As a result, this approach should also consider ensuring a balance between economic, environmental, and social aspects to interact with cities and the environment harmoniously.

Methods

As noted earlier, the conceptual framework for analyzing the links between urbanization and greenhouse gas emissions is based on integrated approaches. However, interdisciplinary tools that combine economic, social, and environmental aspects also occupy a special place. This paper pays great attention to a comprehensive assessment of development trends based on the processes accompanying urbanization. Quantitative indicators are used for this purpose, such as statistics on urban population growth, industrial production, data on energy consumption, and greenhouse gas emissions. The initial data were collected from various available statistical annual compilations, which included indicators of urban growth, demography, industrial production, energy consumption, and greenhouse gas emissions.

Quantitative indicators were used for the analysis covering the period from 2015 to 2021, including statistics on urban population growth, industrial production, data on energy consumption, and greenhouse gas emissions. The initial data were collected from various statistical yearbooks, including information on urban

growth, demographic changes, industrial production, energy consumption, and greenhouse gas emissions. Based on the data obtained and the study results, recommendations will be proposed to reduce greenhouse gas emissions in urbanization processes.

Thus, this paper uses a hybrid research methodology combining quantitative data analysis and a selection of recommendations for research on the relationship between urbanization and greenhouse gas emissions. This analysis provides step-by-step actions to identify possible strategies and reduce the carbon footprint. Further, the steps of the study are proposed in more detail:

(1) The first step is to aggregate the collected quantitative data. Data on urban growth, demographic trends, energy consumption, and greenhouse gas emissions (including CO₂) are aggregated for 2015–2021. Data for 2022 were not included due to the lack of up-to-date data in official statistical reports at the time of the study. Parameters such as the urban population, migration flows, and energy consumption were taken.

(2) The second step is to present the collected quantitative data. Data visualization tools were used to visualize the dynamics of urbanization processes and greenhouse gas emissions. In particular, graphs, structured tables of indicators, and systematized diagrams were constructed that display the geographical distribution of urbanization and the level of emissions in various regions of Kazakhstan.

(3) The third step is the construction of a mental circuit. Tree diagrams are widely used in research to display the relationships between various elements and components visually. In such a scheme, all essential elements are grouped around the central idea using a non-linear graphical layout, which allows for building an intuitive structure (for example, in our case, urbanization, greenhouse gas emissions, and their impact on air quality).

Thus, the proposed algorithm of step-by-step actions allows us to analyze the relationship between urbanization and greenhouse gas emissions. All these steps together form a structured basis for further conclusions and the development of practical recommendations. In addition, targeted measures to reduce greenhouse gas emissions can be proposed, including improving urban infrastructure, using green technologies, and better planning for mega-poles' growth.

Results

Today, one of the critical global environmental problems in the context of climate change is the steady increase in greenhouse gas emissions (including carbon dioxide). At the same time, these processes have a negative impact on the sustainability of the environment, an increase in the average global temperature, changes in weather, and climatic phenomena. At the same time, urbanization, which depends on economic development, changes in demographic structures, and the redistribution of natural resources, plays a significant role in accelerating this process. Industrial and megacity regions of Kazakhstan, such as Almaty, Astana, and Karaganda, are experiencing rapid urbanization rates, accompanied by increased CO₂ emissions. In addition, the expansion of urban and industrial infrastructure in Atyrau and Aktau, as well as transport networks in the process of urbanization, leads to increased emissions, mainly due to the use of fossil fuels — coal, oil, and natural gas, which remain the primary sources of energy in Kazakhstan.

In general, we highlight the main aspects of the impact on CO₂ emissions in Kazakhstan.

1. Economic aspects of urbanization. Urbanization in Kazakhstan is inextricably linked with GDP growth and improvement of the population's standard of living, which contributes to the active development of the industrial sector. Kazakhstan, one of the largest economies in Central Asia, is experiencing a significant increase in energy production and consumption, especially in industrialized regions such as Atyrau, Karaganda, and Pavlodar. The main sectors of the economy, such as mining, energy, and metallurgy, place high demands on energy resources, increasing CO₂ emissions.

2. Social aspects of urbanization. In Kazakhstan, social changes also have an impact on greenhouse emissions. Demographic processes such as migration flows and population aging also play a significant role. Migration of the population from rural to urban agglomerations is observed in Kazakhstan, which increases the demand for infrastructure and energy. The growth of the urban population leads to higher levels of energy consumption and, therefore, to an increase in CO₂ emissions. For example, the Kazakh government can actively support awareness-raising programs to improve environmental literacy, which forms sustainable energy consumption patterns in various sectors of the economy.

3. Environmental aspects of urbanization. Expanding agglomeration areas is accompanied by the construction of new infrastructure complexes, industrial zones, and other logistics, which require significant resources. In particular, in industrial cities such as Almaty, Astana, and Karaganda, intensive construction and the use of traditional energy sources exacerbate the environmental situation in these cities. For example, an

important initiative may be creating conservation areas and parks around large agglomerations, which will help reduce CO₂ and improve air quality.

Next, we propose to consider a radial graph (cobweb), which shows the influence of various factors on urbanization and greenhouse gas emissions (see Figure 1).

Impact Factors on Urbanization and GHG Emissions

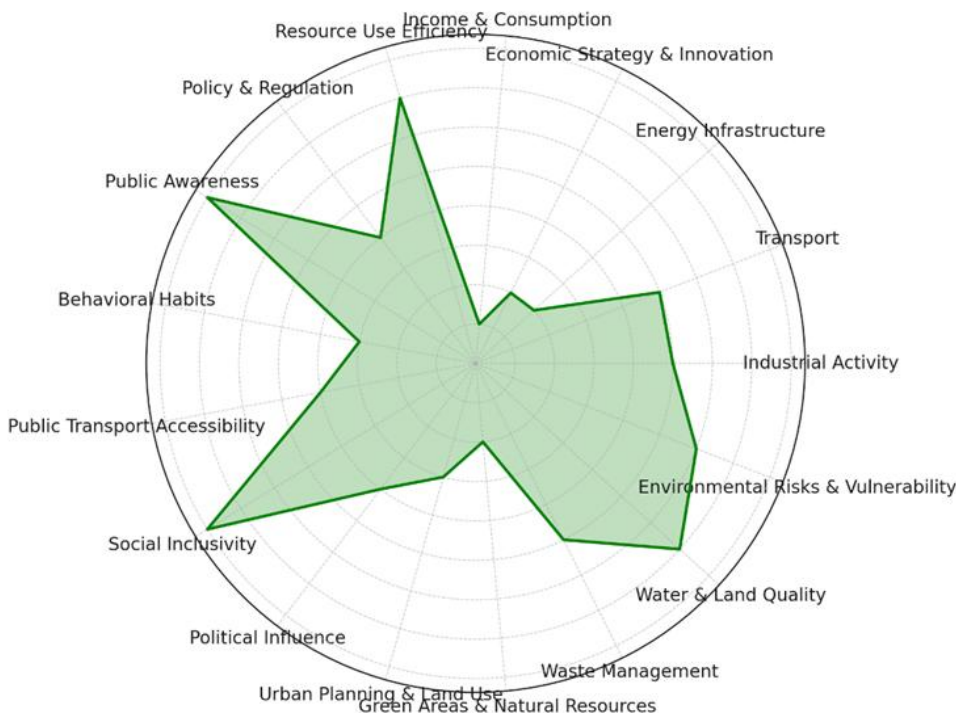


Figure 1. The radial diagram of the impact of various aspects on greenhouse gas emissions

Note — compiled with the data source of the authors

This cobweb is the cumulative impact of economic, social, and environmental aspects on urbanization processes and greenhouse gas emissions. In particular, the diagram shows that the more the area is covered along a particular axis, the stronger the impact of this indicator on urbanization and greenhouse gas emissions. According to the results, the ‘public awareness’ factor is of the greatest importance among other factors, which indicates that environmental awareness of society is a key element in the context of urbanization and GHG emission reduction. At the same time, the average influence is observed from such factors as ‘industrial activity,’ ‘environmental risks and vulnerability’, and ‘public transport accessibility.’ Finally, factors such as ‘income and consumption’ have the least impact and ‘behavioral habits’.

The interplay between urbanization and GHG emissions is complex and influenced by many economic, social, and environmental factors. By understanding and strategically managing these factors, cities can embark on a path toward sustainable development that aligns with global climate goals. Developing integrated strategies that take these diverse influences into account is essential for lowering emissions, creating convenient and accessible infrastructure, improving environmental safety, developing public transportation, improving health care and education, and ensuring a comfortable and safe living space for all residents. This figure 1 provides a visual summary of the different impacts, offering a framework for tackling urban sustainability challenges in a holistic manner.

Discussions

Today, one of the most critical tasks is ensuring environmental safety from atmospheric pollutants. Fine particulate matter, designated as PM-2.5, is one of the most dangerous and widespread pollutants of atmospheric air. PM-2.5 particles are less than 2.5 microns in size and can contain a variety of toxic substances, which makes them especially dangerous to human health. Due to the potential threat to public health, monitoring and analysis of PM-2.5 concentrations in the atmosphere of urban agglomerations are becoming key for the development and implementation of effective strategies to improve air quality.

In this context, an overview of data covering the period from 2015 to 2021 is presented, which contains detailed information on the average annual concentrations of PM-2.5 particles in various cities of Kazakhstan. The data are presented in table 1, which illustrates changes in PM-2.5 concentration levels and allows for a comprehensive analysis of spatial and temporal trends in air pollution (table 1).

Table 1. The average annual concentration of PM solid particles is 2.5 (mg/m³) in various cities

No.	City	Years						
		2015	2016	2017	2018	2019	2020	2021
1	Astana	-	0,020	0,020	0,020	0,03	0,05	0,036
2	Almaty	-	0,020	0,009	0,015	0,03	0,034	0,036
3	Shymkent	0,019	0	0,04	0,04	0,02	0,048	0,023
4	Kokshetau	-	-	-	-	0,002	0,003	0,038
5	Aktobe	0,018	0,02	0,02	0,017	0,0168	0,0136	0,1257
6	Taldykorgan					-	-	0,06
7	Atyrau	0,014	0,003	0,01	0,01	0,0129	0,035	0,088
8	Oral	-	0,02	0,01	0,023	0,01	0,003	0,004
9	Taraz	-	-	-	-	-	-	0,03
10	Karaganda	0,06	0,1	0,1	0,11	0,056	0,04	0,152
11	Balkhash	-	-	-	-	0,048	0,03	0,06
12	Zhezkazgan	-	-	-	-	0,011	-	-
13	Temirtau	-	-	-	-	0,044	0,02	0,036
14	Kostanay	-	-	-	-	0,03	0	0,1
15	Arkalyk	-	-	-	-	-	-	0,0105
16	Rudny	-	-	-	-	-	-	-
17	Kyzylorda	-	-	-	-	0,005	0,001	0,0013
18	Aktau	-	-	-	-	0,055	0,013	0,01
19	Pavlodar	0,016	0,008	0,005	0,005	0,0072	0,0072	0,01
20	Aksu	-	-	-	-	-	-	-
21	Ekibastuz	-	-	-	-	-	-	-
22	Petropavlovsk	-	-	-	-	0,012	0,004	0,002
23	Ust-Kamenogorsk	-	-	-	-	-	-	0,025
24	Ridder	-	-	-	-	-	-	-
25	Semey	0,024	0,035	0,03	0,025	0,014	0,0169	-
26	Glubokoe village	-	-	-	-	0,001	0,0149	0,019

Note — compiled with the data source stat.gov.kz

The concentration of PM-2.5 particulate matter in micrograms per cubic meter (mcg/m³) is a key indicator of air quality in urban areas. PM-2.5 particles have a diameter of less than 2.5 micrometers, which allows them to penetrate deep into the respiratory tract and lungs of a person, as well as enter the bloodstream, which causes a significant health risk. This analysis focuses on trends in the concentration of PM-2.5 in various cities of Kazakhstan over the period from 2015 to 2021, identifying key trends and potential problems for public health.

Trend analysis: The data show different trends in the concentration of PM-2.5 in different cities. In some cities, there is a steady increase in the PM-2.5 level, which indicates a deterioration in air quality. For example, in the cities of Aktobe, Atyrau and Karaganda, there was a significant increase in the concentration of PM-2.5 during the study period. In Karaganda, the PM-2.5 level reached 0.152 micrograms/m³ in 2021, which is the highest indicator in the table under consideration and indicates a significant deterioration in air quality. Aktobe also recorded an increase in the PM-2.5 level to 0.1257 micrograms/m³ in 2021. While in other cities there is a significant variability in the PM-2.5 level, which may indicate a heterogeneity of conditions and sources of pollution. Observations on specific cities:

Karaganda: Reached a maximum concentration of PM-2.5 at 0.152 micrograms/m³ in 2021, which is the highest level among all the studied cities. This confirms the deterioration of air quality and requires urgent action.

Aktobe: The PM-2.5 level increased to 0.1257 micrograms/m³ in 2021, which indicates a deterioration in the air quality situation compared to previous years.

Atyrau and Taldykorgan: In recent years, there has been an increase in the level of PM-2.5, which indicates a tendency to deterioration in air quality.

General remarks: Data for some cities are presented only for a part of the study period, which may indicate gaps in monitoring or reporting. The lack of data for a number of cities (for example, Rudny, Aksu, Kokshetau) may be caused by insufficient monitoring infrastructure or low levels of PM-2.5 pollution in these regions.

Health effects: An increase in the concentration of PM-2.5 in cities is associated with an increase in health risks, including diseases of the respiratory and cardiovascular systems. Cities with increased PM-2.5 levels need to study the sources of pollution and develop air quality management strategies.

The analysis of PM-2.5 particulate matter concentration in the period from 2015 to 2021 demonstrates ambiguous trends in air quality in various cities of Kazakhstan. In some cases, there is an alarming increase in PM-2.5 levels, in others — stability or fluctuations. This variability highlights the need for continuous monitoring, targeted research on pollution sources and the development of effective policy measures to reduce air pollution. Improving the control of PM-2.5 sources is a key aspect for improving air quality and protecting public health.

Table 2. Concentration of Particulate Matter (PM-10) in Individual Cities (Annual Average Value), mg/m³

No.	City	Years						
		2015	2016	2017	2018	2019	2020	2021
1	Astana	0,06	0,100	0,060	0,020	0,03	0,0599	0,047
2	Almaty	0,06	0,050	0,030	0,031	0,05	0,042	0,047
3	Shymkent	0,057	0,1	0,1	0,053	0,04	0,076	0,036
4	Kokshetau	-	-	-	-	0,003	0,003	0,047
5	Aktobe	0,049	0,04	0,04	0,0288	0,039	0,0208	0,098
6	Taldykorgan	-	-	-	-	0,045	0,057	0,041
7	Atyrau	0,043	0,01	0,02	0,022	0,0236	0,056	0,0083
8	Oral	0,062	0,04	0,02	0,01	0,01	0,02	0,01
9	Taraz	0,045	0,1	0,04	0,028	0,03	0,022	0,035
10	Karaganda	0,053	0,1	0,1	0,112	0,059	0,04	0,16
11	Balkhash	-	-	-	-	0,049	0,03	0,16
12	Zhezkazgan	-	-	-	-	0,018	-	0,09
13	Temirtau	-	-	-	-	0,044	0,02	0,063
14	Kostanay	-	-	-	-	0,02	0,03	0,05
15	Arkalyk	-	-	-	-	-	-	0,0146
16	Rudny	-	-	-	-	0	0	0
17	Kyzylorda	-	-	-	-	0,001	0,001	0,0142
18	Aktau	-	-	-	-	0,11	0,105	0,1
19	Pavlodar	0,039	0,016	0,006	0,0066	0,0411	0,0171	0,04
20	Aksu	-	-	-	-	-	-	0,02
21	Ekibastuz	-	-	-	-	0,0782	0	0,02
22	Petropavlovsk	-	-	-	-	0,009	0,007	0,006
23	Ust-Kamenogorsk	0	0	0,5	0,04	0,05	0,0476	0,028
24	Ridder	-	-	-	-	0,04	0,0498	0,019
25	Semey	0,021	0,024	0,02	0,033	0,016	0,0214	0,016
26	Glubokoe village	-	-	-	-	0,001	0,0183	0,028

Note — compiled with the data source stat.gov.kz

This table 2 analyses of annual average PM-10 particulate matter concentrations, expressed in micrograms per cubic metre ($\mu\text{g}/\text{m}^3$) of air, in cities from 2015 to 2021. PM-10 particles are a critical indicator of air quality, as they have a significant impact on environmental conditions and human health. These particles, being smaller than 10 micrometres, can penetrate the respiratory tract and lungs, making them an important monitoring target for assessing air pollution and its impact on public health.

A key aspect of the analysis is that cities such as Astana, Almaty, and Shymkent provide comprehensive data on PM-10 concentrations, allowing for a comprehensive study of the dynamics of air quality changes in these regions. At the same time, cities such as Kokshetau and Taldykorgan only provide data for 2019. This limitation may indicate deficiencies in monitoring or reporting systems for earlier periods, making it difficult to conduct a comprehensive analysis of air quality changes in these locations.

Variability of PM-10 concentrations: The study found significant variability in PM-10 concentrations both within and between cities. In particular, Karaganda and Balkhash showed notable increases in PM-10

levels in 2021. Increasing PM-10 emissions are a serious environmental concern that have significant implications for both environment and human health.

Data gaps: The lack of data for a number of cities in the initial years of observation indicates that the air quality monitoring system was underdeveloped or that there was no relevant judicial practice in the country at that time. This situation highlights the need to improve the mechanisms for collecting and analyzing environmental data, which is an important condition for an objective assessment of the environmental situation and the development of effective measures to improve it.

Future direction: National cities such as Astana and Almaty show differences in PM-10 concentrations, indicating differences in air pollution control efforts and natural resource management strategies. These changes in trends underscore the need for continuous monitoring of the situation and effective measures to improve air quality.

In this regard, PM-10 concentrations are key indicators of air pollution and environmental conditions. The observed variability and trends identified in the analysis highlight the need for ongoing monitoring and development of effective air quality management strategies. The lack of early data for some cities underscores the need for consistent and comprehensive air quality monitoring systems. Addressing these issues is critical to improving air quality and protecting future public health.

The smart map (Figure 2) visually illustrates the complex relationship between urbanization and greenhouse gas emissions, showing how the two interact through different drivers and their impacts.

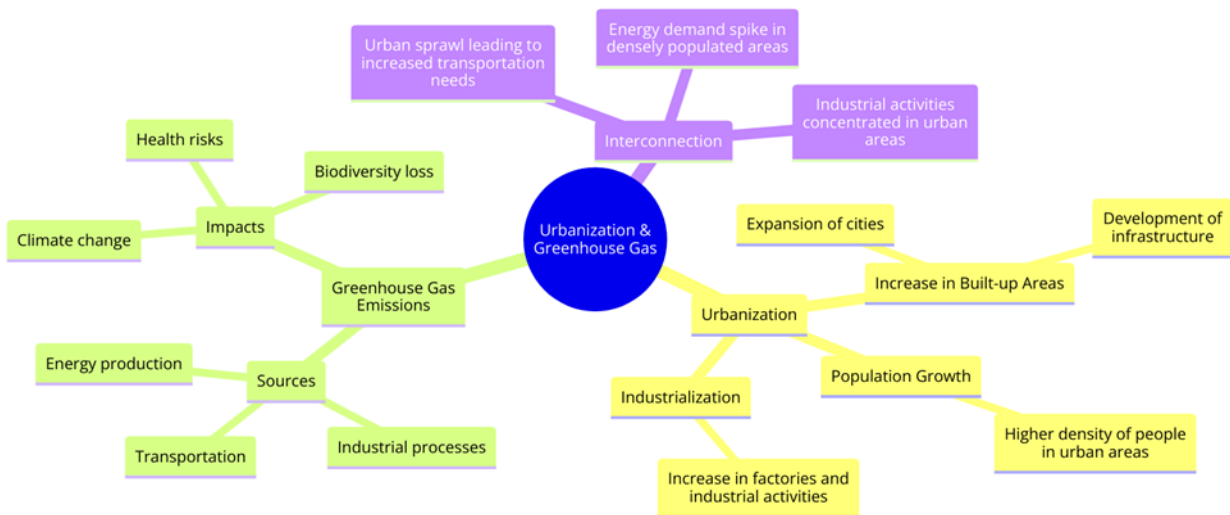


Figure 2. Mind Map of the relationship between urbanization and greenhouse gas emissions

Note —compiled with the data source of the authors

The urbanization branch marks the growth of cities provided with increase in built-up areas and subsequent development of infrastructure. Mentioned improvements cause have strong impact on emissions increase. In particular, there could be highlighted Karaganda, where inhalable particulate matter concentrations exceeded the threshold by more than 30 times in 2021. Moreover, across considered cities in the analysis there was recorded the highest level of particulate pollution observed across the studied cities. In Aktobe, there was observed a similar urban growth, and was recorded increase in inhalable particulate matter concentrations the threshold by more than 25 times. In other words, there is a significant correlation between urbanization and the increase in emissions. Therefore, without implementing and following sustainable development steps infrastructure and careful urban planning, constant growth in emissions will continue to increase along with urban expansion.

The accelerated industrialization process in Kazakhstan in 2010–2022 was accompanied by a significant increase in the number of industrial enterprises, the development of finished product production, and the intensive development of the construction sector. All these conditions for diversifying the economy and reducing dependence on raw materials significantly impacted the environment, which resulted in a sharp increase in CO₂ emissions into the atmosphere. The problem is especially acute in industrial centers such as Atyrau and Karaganda, which has led to a significant excess of the maximum permissible concentrations of harmful substances and an increase in transport emissions. The increase in the content of pollutants in regions dominated by energy production and manufacturing industry leads to a deterioration in air quality, an increase in morbidity among the population, and a negative impact on the environment. In particular, there is

a big problem in some industrial regions, such as Karaganda, Temirtau, and Ust-Kamenogorsk, where the largest volume of emissions falls on industry and concentrations of pollutants exceed permissible norms.

The treemap showed that the increase in emissions in large cities, where large industrial enterprises are located, significantly affects pollution, especially in conditions of urbanized processes. In general, it can be seen that the largest volume of emissions is noticeable in megacities with a high concentration of production, transport networks, and outdated infrastructure. Generally, it is necessary to develop effective measures to reduce air pollution in large urbanized areas.

Urbanization significantly impacts greenhouse gas emissions through its links to population growth, infrastructure development, industrial activity, and transportation. The findings from Karaganda, Aktobe, Atyrau, and Almaty demonstrate that as cities grow, emissions increase due to rising energy use and industrial expansion. Without the implementation of sustainable practices, this upward trajectory in emissions is expected to persist, potentially leading to further environmental and economic consequences. The mind map provides a focused and insightful view of how these elements interact, reinforcing the need for comprehensive strategies that prioritize greener urban planning, efficient energy use, and improved transportation systems to effectively reduce emissions.

Conclusions

In this in-depth analysis of the complex relationship between urbanization and GHG emissions in Kazakhstan, we have explored the intersection of economic, social, and environmental aspects that intricately weave the fabric of this national phenomenon. Kazakhstan's urbanization, propelled by its robust economic expansion, especially in the oil and gas sector, has contributed significantly to the increase in GHG emissions, highlighting the global problem of the intersection of urbanization processes with the challenges of environmental sustainability. The economic underpinnings of urbanization in Kazakhstan underscore a pivotal source of GHG emissions, predominantly through industrial expansion, escalated energy consumption, and transportation. While instrumental in advancing the country's development agenda, this economic dynamism paradoxically amplifies its environmental footprint. It brings to the fore the critical imperative for balancing economic growth with environmental stewardship, necessitating a strategic pivot towards sustainable development practices that are less carbon-intensive and more environmentally benign.

Social insights gleaned from the study accentuate the influential role of societal behaviors, public awareness, and policy engagement in shaping urban environmental outcomes. The burgeoning urban centers in Kazakhstan, characterized by increased mobility demands and energy consumption, mirror the societal transition towards urban living. However, they also highlight the potential of community engagement and inclusive policy-making in driving the transition towards sustainable urban ecosystems. This underscores the importance of fostering a societal ethos that is attuned to sustainable practices, from energy conservation to

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Урбанизация мен парниктік газдар шығарындылары арасындағы байланысты талдау: Қазақстан мысалы

Аңдатпа

Мақсаты: Зерттеу Қазақстандағы урбанизация мен парниктік газдар (ПГ) шығарындылары арасындағы байланысты талдайды, қала өсімінің парниктік газдар шығарындыларына әсерін зерттейді және олардың тұрақты дамуының жолдарын ұсынады.

Әдісі: Зерттеу ұлттық статистикаға негізделген және сандық деректерді талдау мен сапалы нәтижелерді біріктіретін гибриді әдісті пайдаланады. Бұл зерттеуде біз үш негізгі қадамды қамтитын алгоритмді қолдандық: (1) 2015–2021 жылдар аралығындағы әртүрлі көздерден алынған деректерді біріктіру; (2) графиктерді құру үшін деректерді визуализациялау құралдарын пайдалану; және (3) урбанизацияның ауа сапасына әсерін визуализациялау үшін ақыл-ой карталарын құру.

Нәтижелер: Біздің нәтижелеріміз көрсеткендей, Қазақстандағы урбанизация өнеркәсіптік даму, энергия тұтыну және көлік әсерінен парниктік газдар шығарындыларының ұлғаюымен тығыз байланысты. Талдау қаланың теңгерімді дамуының экологиялық, экономикалық және әлеуметтік аспектілерін есепке алудың және қоршаған ортаға әсерді азайтудың маңыздылығын көрсетеді.

Қорытынды: Зерттеу сонымен қатар стратегиялық қала құрылысын жоспарлау, жасыл инфрақұрылымды дамыту және экологиялық таза технологияларды қабылдау арқылы шығарындыларды азайту мүмкіндіктерін анықтайды. Зерттеу Қазақстандағы қала саясаты мен тәжірибесіне және дүние жүзіндегі ұқсас контексттерге ақпарат бере алатын түсініктерді ұсына отырып, тұрақты урбанизация бойынша ағымдағы пікірталасқа үлес қосады.

Кілт сөздер: Урбанизация, парниктік газдар шығарындылары, қазақстан, тұрақты даму, экономикалық факторлар, әлеуметтік факторлар, экологиялық факторлар, қала құрылысы, энергияны тұтыну, саясаттың салдары.

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Анализ взаимосвязи между урбанизацией и выбросами парниковых газов: пример Казахстана

Аннотация

Объект: В исследовании анализируется взаимосвязь между урбанизацией и выбросами парниковых газов (ПГ) в Казахстане, рассматривается влияние роста городов на выбросы ПГ и предлагаются пути их устойчивого развития.

Методы: Исследование опирается на национальную статистику и использует гибридный метод, объединяющий анализ количественных данных и качественных выводов. В данном исследовании мы использовали алгоритм, включающий три ключевых этапа: (1) агрегирование данных из различных источников за период 2015–2021 годов; (2) использование инструментов визуализации данных для построения графиков; и (3) построение mind maps для визуализации последствий урбанизации для качества воздуха.

Результаты: Наши результаты показывают, что урбанизация в Казахстане тесно связана с ростом выбросов парниковых газов, обусловленным развитием промышленности, энергопотребления и транспорта. Анализ подчеркивает важность учета экологических, экономических и социальных аспектов сбалансированного развития городов и снижения воздействия на окружающую среду.

Выводы: В исследовании также определены возможности сокращения выбросов за счет стратегического городского планирования, развития «зеленой» инфраструктуры и внедрения экологически чистых технологий. Исследование вносит вклад в текущую дискуссию об устойчивой урбанизации, предлагая идеи, которые могут быть использованы в политике и практике управления городами в Казахстане и аналогичных контекстах по всему миру.

Ключевые слова: Урбанизация, выбросы парниковых газов, Казахстан, устойчивое развитие, экономические факторы, социальные факторы, экологические факторы, городское планирование, энергопотребление, политические последствия.

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Evaluating the Impact of Socio-Economic Variables on GDP per Capita: A Case Study of Kazakhstan

Abstract

Object: The object of the current article is to build a linear regression model to predict the value of GDP per capita using 9 socio-economic indicators.

Methods: Correlation and regression analysis methods were used for this study. All calculations are performed in MS EXCEL. 1 dependent and 9 independent variables were used as a basis.

Findings: Authors have identified nine variables that can potentially affect the amount of GDP per capita, and collected data according to these variables from 2012 to 2022, from open sources. The model was highly appreciated by generally accepted estimates, including: f value, p value, normalized R square.

Conclusions: Our analysis shows the impact of average wages, human development index, fertility and degree of real interest on GDP per capita, which allows us to build a highly efficient linear regression model. Thanks to our ability to accurately assess and reliably predict, our results shed light on the directions of economic intervention aimed at economic growth and improving the welfare and development of society in Kazakhstan.

Keywords: GDP, regression, dependence, social, economic, factors, statistics, econometrics.

Introduction

In order to understand the size and pace of a country's economy, it is important to distinguish and compare it with the economies of other countries. Many indicators can be used to determine the state of the economy. The most popular indicator is the Gross Domestic Product (GDP) — that is, the volume of all output in dollars in a certain territory for 1 year. However, a more accurate indicator that also takes into account the population of the region is GDP per capita. That is, this indicator shows how much output was produced in dollars per person. This indicator is very significant for any country, so it is important to understand what factors can affect its growth or decline. In this article we decided to identify the statistical relationship between GDP per capita and 9 socio-economic indicators.

Several studies in the scientific literature have examined this issue, but often with different conclusions. For example, while one study identified the fertility rate and population growth as important factors affecting GDP per capita (Çekrezi, 2022), another study showed that the real interest rate is a key factor (Stilich, 2023). Some scholars have examined variables such as compulsory education and population as contributing factors (Ilter, 2016). Moreover, in ASEAN countries, the Human Development Index has shown a particularly strong correlation with GDP per capita, especially in areas where economic growth supports human development (Elistia & Syahzuni, 2018). Koppes (2022) also examined the relationship between fertility and GDP per capita. Another study found that access to credit had a greater impact on GDP per capita than other variables (Vulić, 2021). The differences in the impact of these factors across countries highlight the importance of contextual analysis. In this study, the authors examined open statistics over a 10-year period beginning in 2012 to examine the relationship between Kazakhstan's GDP per capita and nine potentially influential people.

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Literature review

Economists worldwide often measure country's economic growth by growth in productivity, and use measures like gross domestic product (GDP). Technological progress in the socio-economic sphere is an indicator of quality of life, which is mainly determined by the economic well-being of the people. (Sadequl, 1995)

There are many studies on this topic in the scientific literature. But their results differ from each other. For example, while fertility rate and population growth were significant factors affecting GDP per capita in one study (Çekrezi, 2022), other studies have identified actual interest rate as this factor (Stilich, 2023). Some authors have investigated indicators such as compulsory education, population size as factors (Ilter, 2016).

Many scientists, including Ciobanu Oana (2015), Swaha Shome et.al (2010) and Mihuş Loana Sorina (2013), have demonstrated a significant relationship between the Human Development Index (HDI) and GDP per capita. They suggest that economic development is typically measured by the Human Development Index (HDI), an aggregate measure that includes three basic human development areas: (1) health, measured by life expectancy (2) education, knowledge and skills and (3) income, measured by standard of living. (Elistia & Syahzuni, 2018). Elistia investigated the factors affecting GDP per capita in ASEAN countries, which includes 10 from South East Asia from 2010 to 2016 and found a strong influence of Human Development Index (HDI) on the studied indicator. (Elistia & Syahzuni, 2018). A study conducted by Koppes examined the relationship of fertility with gross domestic product per capita (Koppes, 2022).

In another study, it was found that the amount of credit is an indicator that has a greater impact on gross domestic product per capita than other factors. (Vulić, 2021). The variability of the influence of these factors across countries indicates the need for contextual analysis.

In this study, the authors collected statistical data from open sources for 10 years starting from 2012 and examined the relationship between gross domestic product per capita in Kazakhstan and nine indicators that may have a statistical influence on it. As a result, having developed a regression linear model of this relationship, it is possible to predict the gross domestic product per capita in future years by the values of given variable indicators.

Methods

The methods of correlation and regression analysis were used in the analysis and all calculations were carried out using MS Excel. GDP per capita was selected as the dependent variable and nine socio-economic indicators, which are listed below, were selected as independent factors: tertiary enrolment, dollar exchange rate, inflation, number of doctors of all specialities, average wages, unemployment, human development index (HDI), birth rate in the country and real interest rate. A literature review of these issues was prepared. The model was estimated using generally accepted measures including F value, p value, and adjusted R-squared.

Results

In order to fulfil the purpose of the article, the following steps were followed:

- Identification of socio-economic factors that may affect the change in GDP per capita through scientific literature review and search for statistics on these indicators from 2012 to 2022 in the National Statistical Bureau of the Republic of Kazakhstan and other sources.
- Preliminary filtering and processing of data.
- Determination of correlations between independent variables and in case of finding strong relationships between them excluding the least important.
- Modelling the linear regression with GDP per capita and other nine independent variables.
- Making the estimations and adjustments to the model.

Microsoft Excel programme with 'data analysis' extension package was used to build the linear regression model.

For this article, the authors chose the following 9 indicators as independent variables:

- X1-student enrolment in higher education organisations
- X2- US dollar exchange rate
- X3-inflation;
- X4-number of doctors of all specialities;
- X5- average salary, in US dollars;
- X6-unemployment;

- X7-Human Development Index (HDI);
- X8-fertility rate;
- X9-real interest rate.

Gross Domestic Product (GDP) per capita (in US dollars, labelled Y) was obtained as the dependent variable.

Authors have collected statistical data for nine independent variables and one dependent variable from statistical sources (Table 1). It was decided that the values of the dependent variable (GDP per capita) were obtained in US dollars. This was done in order to know the real state of the economy taking into account the devaluation of the national currency. The X5 data (average salary) was also translated by authors into US dollars according their corresponding years for this reason (average salary).

Table 1. Statistical data on GDP per capita and 9 independent indicators in the Republic of Kazakhstan for the years 2012–2022

	GDP per capita	Student enrolment in higher education organisations	US dollar rate	Inflation	Number of doctors of all specialties	Average salary	Unemployment	Human Development Index (HDI);	Fertility rate	Real interest rate
year	y	x1	x2	x3	x4	x5	x6	x7	x8	x9
2012	12 386,90	120408	149	6	64 432	67,91	5,3	64	2,62	5,5
2013	13 890,60	119333	152	4,8	66 038	71,74	5,2	59	2,64	5,5
2014	12 807,40	125362	179	7,4	68 864	67,54	5,1	59	2,73	5,5
2015	10 510,70	115195	222	13,6	69 722	56,84	5	59	2,74	16
2016	7 714,80	147692	342	8,5	74 611	41,76	5	59	2,77	12
2017	9 247,60	138378	326	7,1	72 134	46,27	4,1	58	2,75	10,3
2018	9 812,50	163336	345	5,3	72 877	47,19	4,9	59	2,84	9,3
2019	9 812,50	163494	383	5,4	74 046	48,81	4,8	57	2,9	9,3
2020	9 121,70	152789	413	7,5	76 443	51,58	4,9	59	3,13	9
2021	10 370,80	159804	426	20,3	78 227	58,75	4,9	56	3,32	9,8
2022	11 476,60	163472	461	8,4	79 409	67,26	4,9	57	3,05	16,8

Note — Compiled by the authors on MS Excel on the basis of the National Bureau of Statistics of the RK Agency for Strategic Planning and Reforms, available at <https://stat.gov.kz>

The next step is to test multicollinearity, that is, the relationship between the independent variables. For this purpose, the authors created a correlation matrix and determined how strong the relationship between each of them is (Table 2). The table is symmetrical on the diagonal, so the top is completely the same as the bottom. From Table 2, we can see how correlated the independent variables are with each other. High values of relationship between variables, exceeding 0.7 or higher, may prevents you from building a regression model. Hence, in such scenario its common practise to remove one of the variables from the model. When you remove variables, the first thing you need to do is remove those that have a lot of collinearity with others.

Table 2. Correlation matrix

	y	x1	x2	x3	x4	x5	x6	x7	x8	x9
y	1									
x1	-0,55	1								
x2	-0,64	0,92	1							
x3	-0,17	0,10	0,30	1						
x4	-0,59	0,86	0,97	0,42	1					
x5	0,95	-0,48	-0,49	0,01	-0,41	1				
x6	0,53	-0,34	-0,46	-0,03	-0,39	0,58	1			
x7	0,29	-0,60	-0,69	-0,43	-0,75	0,26	0,48	1		
x8	-0,34	0,72	0,83	0,62	0,86	-0,15	-0,19	-0,65	1	
x9	-0,44	0,30	0,54	0,37	0,59	-0,27	-0,29	-0,44	0,31	1

Note — Compiled by the authors on MS Excel on the basis of the National Bureau of Statistics of the RK Agency for Strategic Planning and Reforms, available at <https://stat.gov.kz>

Having deeply analysed Table 2, the authors decided to remove five indicators in the linear regression model, leaving only four of the originally selected independent variables, X5 (average wage), X7 (human development index), X8 (national fertility) and x9 (actual interest rate), which are listed below in Table 3. Based on Table 3, we can now make linear equation, which can explain the model with Formula 1.

Table 3: Correlation matrix after multicollinearity test

	y	x5	x7	x8	x9
y	1				
x5	0,945908	1			
x7	0,292197	0,258264	1		
x8	-0,34427	-0,15249	-0,64932	1	
x9	-0,43821	-0,27273	-0,43734	0,31224	1

Note-Compiled by the authors on MS Excel on the basis of the National Bureau of Statistics of the RK Agency for Strategic Planning and Reforms, available at <https://stat.gov.kz>

$$Y=a_0+a_1x_1+\dots+anx_n \quad (1)$$

where:

Y — dependent variable. In our case, GDP per capita in US dollars;

a_0, a_1, a_n — regression coefficients;

x_1, x_n — independent variables.

Table 4: Regression table.

<i>Regression statistics</i>	
Multiple R	0,988041741
R-square	0,976226482
Normalized R-square	0,960377471
Standard error	363,0975004
Observations	11

<i>Analysis of variance</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>F significance</i>
Regression	4	32482908,44	8120727,11	61,59541678	5,2787E-05
Remains	6	791038,7689	131839,7948		
Total	10	33273947,21			

	<i>Coefficients</i>	<i>Standard error</i>	<i>t-statistics</i>	<i>P-value</i>	<i>Low 95 %</i>	<i>High 95 %</i>	<i>Low 95,0 %</i>	<i>High 95,0 %</i>
Y-intersection	20237,61855	6048,89845	3,345670078	0,0155023	5436,497	35038,73	5436,4972	35038,7398
x5	157,498629	11,55653841	13,62852987	9,690E-06	129,2207	185,7764	129,22079	185,776459
x7	-185,9971164	78,56413543	-2,36745577	0,0557138	-378,2366	6,242397	-378,23663	6,24239769
x8	-2342,95561	689,9858529	-3,39565746	0,0145736	-4031,290	-654,6210	-4031,2901	-654,62104
x9	-92,35699018	33,68560955	-2,74173427	0,0336582	-174,7827	-9,931272	-174,78270	-9,9312729

Note — Compiled by the authors on MS Excel on the basis of the National Bureau of Statistics of the RK Agency for Strategic Planning and Reforms, available at <https://stat.gov.kz>

In this part of the paper a linear regression model will be estimated. Table 4 above shows the main indicators for model estimation used in scientific research. The first one is the normalised coefficient of determination. In this study, the model has a normalised R-square value of 0.98. This indicates a sufficiently high level of explanatory power. From this we can conclude that 98 per cent of the change in GDP per capita (Y) can be explained by the change in average wages (x5), human development index (X7), birth rate in the country (X8) and actual interest rate (X9), and 2 per cent by the change in other random indicators.

The next indicator to look at is the significance level of the F criterion. Many scholars agree that the significance level of the F criterion should be below 0.05. In this model the significance level of F is 5.2787 E-05, this confirms that is statistically significant for this criterion.

In addition, P values were calculated to further assess the significance of the individual coefficients. The P value represents the minimum level of significance at which the null hypothesis can be refuted based on

the calculated test statistics. Typically, p values are compared to standard significance thresholds such as 0.005 or 0.01. For example, a p value of 0.005 indicates that the probability that the null hypothesis is true is only 0.5 %. Hence, smaller p-values indicate strong evidence against the null hypothesis. From the table, we see the P-values of y-intercept, X5, X7, X8 and X9 (0.015, 9.690 E-06, 0.055, 0.014 and 0.033) fulfil these requirements and are statistically significant.

The model is statistically significant on the main characteristics of the estimation, so the formula for the linear equation of the regression model is as follows (Formula 2):

$$Y_1 = a_0 + a_1x_5 + a_2x_7 - a_3x_8 - a_4x_9 \tag{2}$$

where:

- Y1 — GDP per capita in US dollars;
- a0, a1, a2, a3, a4 — regression coefficients;
- x5 — average salary, in US dollars;
- x7 — Human Development Index (HDI);
- x8 — fertility rate;
- x9 — real interest rate.

The values of the coefficients a0, a1, a2, a3, a4 in the formula can be found in Table 4 in the column of coefficients. Taking into account the found parameters, the equation in its last form a0, a1, a2, a3, a4 takes the following form (Formula 3):

$$Y_1 = 20237,61 - 157,5x_5 - 186x_7 + 2343x_8 + 92,36x_9 \tag{3}$$

To check the correctness of the calculated values of a0, a1, a2, a3, a4, these values are transferred to the initial equations of the system. By comparing the initial equations with the calculated coefficients, we can determine the accuracy of the calculation.

If we add different values of average wages (x5), human development index (X7), fertility (X8) and degree of real interest (X9) to the regression equation, we obtain theoretical values of GDP per capita (Y1) corresponding to these indicators (Table 5).

Table 5: Theoretical values of GDP per capita (Y1) and percentage of model errors.

year	x5	x7	x8	x9	Y	Y1	Kare
2012	67,91	64	2,62	5,5	12 386,90	12383,02785	0,03 %
2013	71,74	59	2,64	5,5	13 890,60	13869,37407	0,15 %
2014	67,54	59	2,73	5,5	12 807,40	12997,01382	1,48 %
2015	56,84	59	2,74	16	10 510,70	10318,60054	1,83 %
2016	41,76	59	2,77	12	7 714,80	8242,660508	6,84 %
2017	46,27	58	2,75	10,3	9 247,60	9342,842437	1,03 %
2018	47,19	59	2,84	9,3	9 812,50	9183,235044	6,41 %
2019	48,81	57	2,9	9,3	9 812,50	9669,799719	1,45 %
2020	51,58	59	3,13	9	9 121,70	9222,903996	1,11 %
2021	58,75	56	3,32	9,8	10 370,80	10391,11336	0,20 %
2022	67,26	57	3,05	16,8	11 476,60	11531,52866	0,48 %
						Average error	1,91 %
						Maximal error	6,84 %

Note – Compiled by the authors on MS Excel on the basis of the National Bureau of Statistics of the RK Agency for Strategic Planning and Reforms, available at <https://stat.gov.kz>

The coefficients of the regression equation designated as a0, a1, a2, a3, and a4 are called the regression coefficients and are the key indicators of the equation. These coefficients show the change in the dependent variable Y for each unit change in the independent variable variables.

Based on the results, the following conclusions can be drawn.

\$1 increase in average wages is predicted to increase GDP per capita by \$157.

1 point increase in the Human Development Index is expected to decrease per capita GDP by about \$186.

1 point increase in the national fertility rate would decrease per capita GDP by about \$2,343.

1 % increase in the real interest rate is estimated to reduce per capita GDP by \$92.

The blocked term, a0 (equal to 20,237.62), provides a constant initial value to be considered when using regression coefficients.

We can use Y1 to measure the accuracy of the model. Column 8 of Table 5 shows the error percentages of the 8 models, with an average error rate of 1.91 % and a maximum error of 6.84 %. Given these figures, and other key metrics such as R-squared (over 98 %), P-values (0.015, 9.690E-06, 0.055, 0.014, and 0.033 for Y and X5, X7, X8, X9), its F-squared value does not exceed 0.05, the model exhibits strong reliability. Confidence can be used to forecast per capita GDP based on average wages, the Human Development Index, fertility rates and real interest rates.

Discussions

In this study, the regression analysis applied to Kazakhstan data from 2012 to 2022 revealed specific socioeconomic variables that significantly affect per capita GDP. Notably, wages, a supply, human development index, fertility rate and real interest rate as key factors. The results of the model show that an increase in average wages has a positive effect on GDP per capita, which is consistent with the hypothesis that higher incomes can lead to economic growth but which increases in the human development index and the fertility rate have been found to have a negative effect on GDP per capita is unexpected. It can, where rapid changes in these indicators can disturb or hide financial resources underlying inefficiencies revealed.

The negative effect of real interest rates on GDP per capita is consistent with existing economic theory, where higher interest rates can dampen investment and economic activity. Strong statistical understanding of the presence in the model and the low error rate (average error rate 1.91 % and maximum value 6.84 %) indicate that these relationships are stronger in the case of Kazakhstan.

These findings emphasize the importance of country-specific analysis when examining the factors affecting GDP per capita. Variation in outcomes across studies and regions suggests that a one-size-fits-all approach is inappropriate. The context-specific relevance of these variables needs to be considered when designing policies aimed at economic development. For Kazakhstan, the model developed in this study provides a useful tool to predict per capita GDP based on socio-economic variables, and provides valuable insights for policy-making.

Conclusion

The aim of this study is to assess the impact of various socio-economic variables on GDP per capita in Kazakhstan, using data collected from the National Bureau of Statistics of the Republic of Kazakhstan from 2012 to 2022. After careful preprocessing of the data, including the conversion of average wages from tenge to U.S. dollars, in dollars to ensure accuracy, and after rigorous testing for multicollinearity, the study focused on four key independent variables: average salary, Human Development Index (HDI), country birth rate, and real interest rates.

The results of the linear regression model were checked on widely accepted statistical parameters such as F-value, P-value, and normalized R-squared. The model showed following results:

A \$1 increase in average wages is associated with a \$157 increase in GDP per capita.

A 1-unit increase in the Human Development Index corresponds to a \$186 per capita decrease in GDP.

A 1-unit increase in the national fertility rate produces a whopping \$2,343 decrease in per capita GDP.

A 1 % increase in the real interest rate reduces per capita GDP by \$92.

The accuracy of the model was further confirmed by error analysis, which showed an average error rate of 1.91 % and a maximum error of 6.84 %. The high R-square value (greater than 98 %) and positive p-value confirm the robustness and reliability of the model in predicting per capita GDP based on a given set of socio-economic variables.

In conclusion, this study provides valuable insights into the socio-economic factors affecting GDP per capita in Kazakhstan. The findings highlight the importance of context-specific research in understanding economic development. The model developed here can be a reliable tool for forecasting GDP per capita based on the use of key socio-economic indicators. However, the negative effects observed by the HDI and higher fertility rates suggest that further research is needed to understand their causal mechanisms and identify policy changes that can mitigate these effects. These results contribute to the wider literature by highlighting the complex and sometimes unexpected relationships between socioeconomic variables and economic growth, especially in the context of emerging economies such as Kazakhstan.

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Әлеуметтік-экономикалық айналымының жан басына шаққандағы ЖІӨ-ге әсерін бағалау: Қазақстан мысалында

Аңдағанда

Мақсаты: Ағымдағы мақаланың мақсаты-9 әлеуметтік-экономикалық көрсеткішті қолдана отырып, жан басына шаққандағы ЖІӨ құнын болжау үшін сызықтық регрессия моделін құру.

Әдісі: Бұл зерттеу үшін корреляциялық және регрессиялық талдау әдістері қолданылды. Барлық есептеулер MS EXCEL бағдарламасында орындалады. Негіз ретінде 1 тәуелді және 9 тәуелсіз айналымы пайдаланылды.

Қорытынды: Авторлар жан басына шаққандағы ЖІӨ көлеміне әсер етуі мүмкін тоғыз айналымы анықтады және 2012 жылдан 2022 жылға дейінгі осы айналымы туралы деректерді ашық көздерден жинады. Модель жалпы қабылданған бағалаулармен жоғары бағаланды, соның ішінде: F мәні, p мәні, қалыпқа келтірілген R квадраты.

Тұжырымдама: Біз жүргізген талдау жан басына шаққандағы ЖІӨ-ге орташа жалақының, адам дамуының индексінің, туу коэффициентінің және нақты қызығушылық дәрежесінің әсерін көрсетеді, бұл жоғары тиімді сызықтық регрессия моделін құруға мүмкіндік береді. Дәл бағалау және сенімді болжау мүмкіндігінің арқасында біздің нәтижелеріміз экономикалық өсуге және Қазақстандағы қоғамның әл-ауқаты мен дамуын арттыруға бағытталған экономикалық араласу бағыттарына жарық түсіреді.

Кілт сөздер: ЖІӨ, регрессия, тәуелділік, әлеуметтік, экономикалық факторлар, статистика, эконометрика.

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Оценка влияния социально-экономических переменных на ВВП на душу населения: На примере Казахстана

Аннотация

Объект: Целью данной статьи является построение линейной регрессионной модели для прогнозирования значения ВВП на душу населения по 9 социально-экономическим показателям.

Методы: Для исследования использовались методы корреляционного и регрессионного анализа. Все расчеты выполнены в MS EXCEL. За основу были взяты 1 зависимая и 9 независимых переменных.

Результаты: Авторы выделили девять переменных, которые потенциально могут влиять на объем ВВП на душу населения, и собрали данные по этим переменным с 2012 по 2022 год из открытых источников. Модель была высоко оценена общепринятыми оценками, включая: значение f , значение r , нормализованный квадрат R .

Выводы: Проведенный нами анализ показывает влияние средней заработной платы, индекса человеческого развития, рождаемости и степени реальной заинтересованности на ВВП на душу населения, что позволяет построить высокоэффективную линейную регрессионную модель. Благодаря возможности точной оценки и надежного прогнозирования наши результаты проливают свет на направления экономического вмешательства, направленного на экономический рост и повышение благосостояния и развития общества в Казахстане.

Ключевые слова: ВВП, регрессия, зависимость, социальные, экономические факторы, статистика, эконометрика.

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Economic impact of international gender agreements on the labor market of the Republic of Kazakhstan

Abstract

Object: To study the economic impact of international gender agreements on the labor market in Kazakhstan, identify existing barriers to their implementation and formulate recommendations to improve gender equality and strengthen the country's economic performance.

Methods: Analysis of specialized scientific literature and legal framework, theoretical and practical methods of research, generalization and forecasting.

Results: The analysis of the implementation of international agreements on gender equality in Kazakhstan revealed certain trends. There had been improvements in women's access to education and representation in politics, but challenges remained with regard to equal employment opportunities, which required additional efforts to ensure real gender equality.

Conclusions: Over the past three years, Kazakhstan has made significant progress in ensuring equal opportunities in education, health and the labour market. However, certain difficulties have been identified in the implementation of international agreements, which the authors are trying to analyse. The article offers concrete ways to improve gender policy in Kazakhstan — a list of priority measures that, in the opinion of the authors, will significantly improve the current situation in this field.

Keywords: Kazakhstan, gender gap, international agreements, gender equality, employment, sustainable development goal, labor market

Introduction

Since gaining its independence, Kazakhstan has consistently followed the process of ratifying the international agreements and conventions submitted by the International Labour Organization (ILO) and the United Nations (UN). These instruments include, inter alia, the ILO Convention «On Discrimination in Employment and Occupation», the ILO Convention «On Equal Treatment and Opportunities for Men and Women Workers: Workers with Family Responsibilities», the Declaration on the Elimination of Violence against Women, The Beijing Declaration and Platform for Action, the United Nations Millennium Declaration and the Declaration «Transforming our World: Sustainable Development Agenda (SDG) 2030». (Lipovka, 2019).

The Constitution and the Labour Code clearly establish equal rights and opportunities for men and women. In 2009, the Law of the Republic of Kazakhstan «On State Guarantees of Equal Rights and Opportunities for Women and Men in the Republic of Kazakhstan» was adopted, which confirms the provisions of the Constitution and the Labour Code.

In 1995, the Council for the Family, Women and Population Policy had been established, followed by the National Commission for Women and Family and Population Policy, which incorporated equal rights and opportunities for men and women.

The «First Gender Policy Strategy» was adopted in 2003, the «Gender Equality Strategy of the Republic of Kazakhstan for 2006–2016» in 2006 and the «State Gender Policy Programme for the Republic of Kazakhstan until 2030» (hereinafter referred to as the Programme) in 2016. The adoption of the Programme underlines the importance of addressing gender inequality at the State level. One of the

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objectives of the gender policy is «to ensure equal rights, responsibilities and opportunities for men and women in all spheres of public life and to eliminate all forms of discrimination and gender-based violence».

On the basis of the above, we can conclude that a gender policy has been implemented in Kazakhstan, that national legislation is in accordance with international agreements, that responsible bodies have been established and that programmes and strategies have been developed. Official human rights statistics on gender equality show clear efforts to address discrimination.

The purpose of this study is to identify the compliance of the State gender policy with international agreements and to identify problems that need to be addressed. Emphasis is placed on the relevance and effectiveness of measures to achieve gender equality in society, and an analysis is made of measures and programmes already introduced in the field of gender equality for women and men. The study provides information on the State's current policy and programme to promote gender equality in Kazakhstan and reveals the problems and difficulties encountered in implementing international agreements.

Literature review

The study of gender equality as an academic and social concept began at different times in different countries. However, some of the first studies and discussions on this topic have their roots in the United States and Western Europe in the 1960s and 1970s.

In the United States, the feminist movement has played an important role in the study of gender issues and gender inequality since the 1960s. Books, articles and research by activists and scholars have contributed significantly to understanding gender equality issues.

In Europe, too, there has been much discussion about gender issues. In Western Europe, feminists and activists began to draw public attention to gender inequality in the 1970s and 1980s.

The global agenda for change, intent, purpose and overall goals were generally defined with the publishing of the Brundtland Report (1987), and the progress since then entered a new phase when the SDGs were adopted by the UN as the 2030 Agenda, while SD has been adopted across several economic policy fields in order to define specific objectives and goals. While highlighting SD challenges and opportunities, studies have included the gender dimension to a lesser extent, as illustrated in the existing literature that concerns the SDGs (Magendane & Kapazoglou, 2021; Scharlemann et al., 2020).

Gender inequality is pervasive across the world and women experience a series of disadvantages, in comparison to men. Yet, SD requires that we should all enjoy equal rights and be able to appreciate lives, free from violence and discrimination (UN Women, 2020). There has been progress in some areas of discrimination, e.g., more girls in education, fewer girls forced into marriage, and more women in leadership roles, but policy decisions related to education, health and other sectors continue to take place in gendered contexts (Morgan et al., 2020). A situation where approximately half of the population is denied equal opportunities, equal participation in decision-making, and equal access to resources, education and employment will contribute to severely inhibiting SD and global prosperity (Dugarova, 2018).

Thus, and through SDG5, gender equality is rightfully at the heart of the 2030 Agenda for SD (UN, 2015), recognised as an essential human right and important enough to be a goal in its own right, among other 16 SDGs. Its significance is such that it constitutes a cross-cutting theme spanning all the other 16 SDGs, with a total of 45 targets and 54 indicators gender-related. It is suggested that not only is SDG5 critical to all the other SDGs, with gender inequality being an obstacle to progress, but that it has the potential to serve as an SD accelerator, with a positive multiplier effect, to speed up the progress of the 2030 Agenda (UNSDG, 2018). Gender equality and women's empowerment should have a catalytic effect on human development (Odera & Mulusa, 2020) if gender is in fact actively addressed across all SDGs.

Hillary Charlesworth, a renowned scholar of international law and human rights, has conducted extensive research on international instruments on gender equality. Its work focused on the analysis of legal mechanisms to protect women's rights and advance gender equality in the context of international law (The best lawyers, 2012).

Charlesworth discussed the significance of international instruments such as the UN Convention on the Elimination of All Forms of Discrimination against Women (UNEDC) and their impact on the development and implementation of gender equality policies and legislation at the national level. It has identified these instruments as a fundamental tool for protecting women's rights and achieving gender equality.

Charlesworth also examined the role of international organizations and monitoring mechanisms such as the Committee on the Elimination of Discrimination against Women (CEDAW) and their contribution to the

monitoring and evaluation of States' implementation of their gender equality obligations under international instruments.

Her work and research have helped to highlight the importance of international instruments on gender equality in the context of developing and developing legislation to protect women's rights and achieve gender equality at both the international and national levels.

The work of Christine Bershaw, who has researched international law and human rights, has also drawn attention to the importance of international instruments in the context of gender equality and women's rights.

Its work focuses on:

- Bershaw emphasizes that international instruments and standards on gender equality play a key role in creating a basic normative framework that protects women's rights and promotes gender equality in the global arena.

- She discusses how international organizations such as the UN and their entities actively contribute to the development and implementation of international instruments focused on the protection of women's rights and the setting of gender equality standards.

- She discusses the importance of integrating international instruments on gender equality into national legislation to ensure their effective implementation and the protection of women's rights on the ground.

- Bershaw analyses the effectiveness of the application of international treaties in different countries and contexts, highlighting which aspects of these standards work better and where improvements are possible (Jesstopia Wiki, 2021).

Charlotte Bauer, an outstanding scholar in women's rights and human rights, has had a significant impact in advancing gender equality in the international arena. Her outstanding work and diplomatic activism in the field of women's rights made her a key figure in the formation of international standards on gender equality and contributed significantly to the development of the Universal Declaration of Human Rights (AARP, 2008).

Charlotte Bauer emphasized the importance of intersecting identities in the struggle for gender equality. She argued that women of different races, classes, sexual orientation and gender identity faced unique obstacles that could not be fully understood or addressed without taking these intersections into account.

Bauer also stressed the importance of including women's voices in decision-making. She argued that women should be represented at all levels of decision-making, from local to global, to ensure that their unique perspectives and experiences were taken into account.

In her works, Bauer often referred to international treaties such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) as important tools for promoting gender equality. She argued that these instruments provide important legal and policy tools to address gender inequality at the national and international levels (Academia, 2019).

Overall, Charlotte Bauer's work on gender equality and international treaties demonstrated her deep understanding of the complexity and diversity of gender equality issues. Its contribution in this area continues to influence current discussions and practices on gender equality.

It should also be taken into account that the adoption of a number of international instruments on gender equality has had a significant impact on the world and national policies in many countries:

- 1) Many countries have amended their laws and policies to meet international standards of gender equality, improving the legal protection of women's rights, their participation in political and economic life, and their protection from discrimination.

- 2) The adoption of these instruments has stimulated greater awareness of gender equality issues and its importance in society. This has facilitated educational programmes and campaigns to combat prejudices and stereotypes.

- 3) The adoption of these instruments has strengthened international cooperation on gender equality. Many countries have begun to cooperate more actively in this area, sharing experiences and best practices.

- 4) The pursuit of gender equality is often accompanied by improved access to education, health, employment and other resources for women, which contributes to their well-being.

- 5) The adoption of international instruments has had an impact on increasing the representation of women in politics and business in many countries.

These are just some of the many implications of the adoption of international instruments on gender equality. The real changes in each country may vary depending on the political, cultural and economic context.

The study of gender equality in Kazakhstan began mainly within academic and scientific circles, activist groups and public organizations in the late 20th and early 21st centuries. This work was aimed at analysing and understanding problems related to gender inequality in society and the national context of Kazakhstan.

In addition, international organizations such as the United Nations and other non-governmental organizations have actively promoted research and initiatives on gender equality in the country. They have supported and conducted research, funded programmes and projects to support gender equality and the advancement of women in Kazakhstan.

Over time, interest in the study of gender equality in Kazakhstan has grown and this issue has become an important part of academic and scientific research, educational programmes and State strategies. Activists, scientists, educational institutions and State bodies make a significant contribution to the study and promotion of gender equality in Kazakhstan.

Methods

This material is based on scientific research papers and regulatory documents, which are a reliable source of information in scientific work. During the study, data on the law of the Republic of Kazakhstan dated December 8, 2009 № 223-IV «On State guarantees of equal rights and opportunities for women and men in the Republic of Kazakhstan», «The State Gender Policy Program of the Republic of Kazakhstan until 2030» approved by the decree of the president of the Republic of Kazakhstan dated September 13, 2021 № 659 were studied and analyzed. The implementation of the international treaty «The 2030 Agenda for Sustainable Development» adopted in the Republic of Kazakhstan in 2015 and the Declaration of the Beijing platform of actions in 1995 was thoroughly studied and a number of analytical work was carried out.

The authors used both general theoretical and practical research methods, combining them to analyze the impact of gender equality on the socio-economic development of the country. General theoretical research methods were based on data analysis, synthesis and generalization. Methods of content analysis and comparative analysis were used to analyze research papers and regulatory documents. Methods of induction, deduction and prediction were used to formulate the hypothesis. Practical research methods based on Internet surveys allowed us to test the hypothesis and offer recommendations for achieving gender equality.

Results

Our analysis of the implementation of international treaties on gender equality in the Republic of Kazakhstan allows us to draw a number of important conclusions:

1) Effectiveness of activities and programmes: The analysis made it possible to see the effectiveness and impact of specific activities undertaken to achieve gender equality. This includes the evaluation of programmes introduced in the fields of education, health, political participation and other areas.

2) The role of State institutions and organizations: The analysis assesses the role of governmental and public bodies in the implementation of gender equality treaties. This includes the effectiveness of legislative changes, the implementation of State programmes and the activities of public organizations.

3) Monitoring and evaluation: Assessing the effectiveness of gender equality programmes and activities requires systematic monitoring and evaluation. An important conclusion may be an assessment of the existence of a monitoring system and methods for assessing the results of policies introduced.

In the process of monitoring the implementation of international agreements on gender equality in Kazakhstan, some problems arise:

- Lack of data on gender equality: it is possible that certain aspects of gender equality may not be sufficiently documented or reflected in official statistics. This may include data on wages, access to education, health and women's participation in politics and business.

- Lack of funding and resources: Limited financial resources may be an obstacle to comprehensive monitoring and research on gender equality.

- Lack of a single focal point: some problems may arise due to fragmented monitoring mechanisms and the absence of a single focal point, which may hamper data collection and analysis.

- Lack of public feedback: the public may not always be fully involved in the monitoring process, and its involvement in identifying or reporting problems may be limited.

These aspects can be analysed in depth to provide a more complete picture of the implementation of international agreements on gender equality in the Republic of Kazakhstan.

Discussions

Gender equality — legal status ensuring equal rights and opportunities for men and women and effective access to political, economic, social, social and cultural life, regardless of gender (Zakon Respubliki Kazakhstan «O gosudarstvennykh garantiyakh ravnykh prav i ravnykh vozmozhnostei muzhchin i zhenshchin », 2009).

With the agreement of the Republic of Kazakhstan and other countries, an ambitious Agenda aimed at establishing and developing gender equality was adopted on 2 August 2015. The initiative included 17 new Sustainable Development Goals (SDGs) with 169 targets. The main objective of the programme is to address poverty, inequality, prosperity and environmental protection by 2030. Specifically, the fifth objective focuses on gender equality, and a detailed discussion of this aspect is proposed below (UN Women, 2018).

Sustainable Development Goal 5 of the United Nations seeks to achieve gender equality and the empowerment of women and girls. Its main objective is to eliminate all gender-based discrimination. The objectives of this Goal in the context of women and girls include effective measures to eliminate multiple forms of discrimination and violence in both the public and private spheres, as well as the prohibition of harmful practices. Additional aspects in this context include recognition of unpaid domestic work, equal opportunities for leadership at all levels of decision-making, and access to sexual and reproductive health and rights (Mikhaleva, 2022).

In Kazakhstan, the second Voluntary National Review of the Implementation of the Sustainable Development Agenda 2030 (hereinafter referred to as the Review) was prepared in 2022. The document analyses the implementation of the goals and objectives set by the United Nations. In the three years since the 2019 review, Kazakhstan has made significant progress in building a society with equal rights and opportunities, including:

- 1) In 2021, Kazakhstan officially joined two global coalitions dedicated to combating gender-based violence and promoting economic justice and justice.
- 2) Legislation has established a mandatory quota of 30 per cent for the representation of women and youth on party lists and for the distribution of seats.
- 3) As part of the legislative changes, the list of occupations restricting women's employment has been abolished.
- 4) Women's entrepreneurship development centres have been established in various regions of the country.
- 5) Accountability and sanctions for violence against children strengthened (Economic Research Institute Qazaqstan, 2022).

At the end of 2021, the Republic of Kazakhstan approved a plan for the implementation of United Nations Security Council resolutions, including resolutions 1325 (2000), 1820, 1888, 1889, 1960, 2106, 2122, 2242, 2467. Under the Plan, international negotiations and consultations on disarmament, non-proliferation and international security are expected to involve women staff in the diplomatic process (Economic Research Institute Qazaqstan, 2022).

According to the analysis, Kazakhstan pays special attention to creating conditions for ensuring reproductive health for both men and women. In 2020, the Head of State, in his Address to the People of Kazakhstan, entrusted the Government with the implementation of a special programme called «Ansagan Sabi». In 2021, more than 7,000 women underwent In-Vitro Fertilization (IVF) under this programme, more than 3,000 pregnant women were registered with the medical service and some 360 babies were born (Economic Research Institute Qazaqstan, 2022).

There is a high level of women's employment on the labour market, which indicates the presence of a significant number of qualified professionals. Currently, the share of women among employees is almost half (49.1 %). Despite this, however, women earn significantly less than men. Women are mainly employed in the fields of education, health, social services and culture, where the pay level is significantly lower than the national average. At the same time, men are predominantly employed in industrial sectors such as oil and gas, mining and manufacturing, as well as in transport and construction, where wages are above the national average (Economic Research Institute Qazaqstan, 2022).

An additional area in which women's influence on decision-making is reflected is civil society. There are 22,398 non-governmental organizations (NGOs) in the Republic of Kazakhstan, of which more than 500 specialize in issues related to family and gender policy, with a significant impact on the empowerment of women. Of these, 8,220 (36.7 %) are run by women. A national network of women's leadership schools, comprising almost 70 NGOs, is active (Economic Research Institute Qazaqstan, 2022).

It may also be noted that in 2020 the Republic of Kazakhstan and the United Nations signed an agreement on cooperation for sustainable development for 2021–2025.

The cooperation framework will be the main document of joint activities between Kazakhstan and the United Nations for the next five years. It includes three pillars: human development and equal participation; effective institutions, human rights and gender equality; sustainable environment and inclusive economic development (Ministerstva inostrannykh del Respubliki Kazakhstan, 2020).

In the ranking of countries according to the gender equality index (hereinafter referred to as the rating), we can see the effectiveness of the measures taken to eliminate gender inequality, which are indicated in the 1st figure.

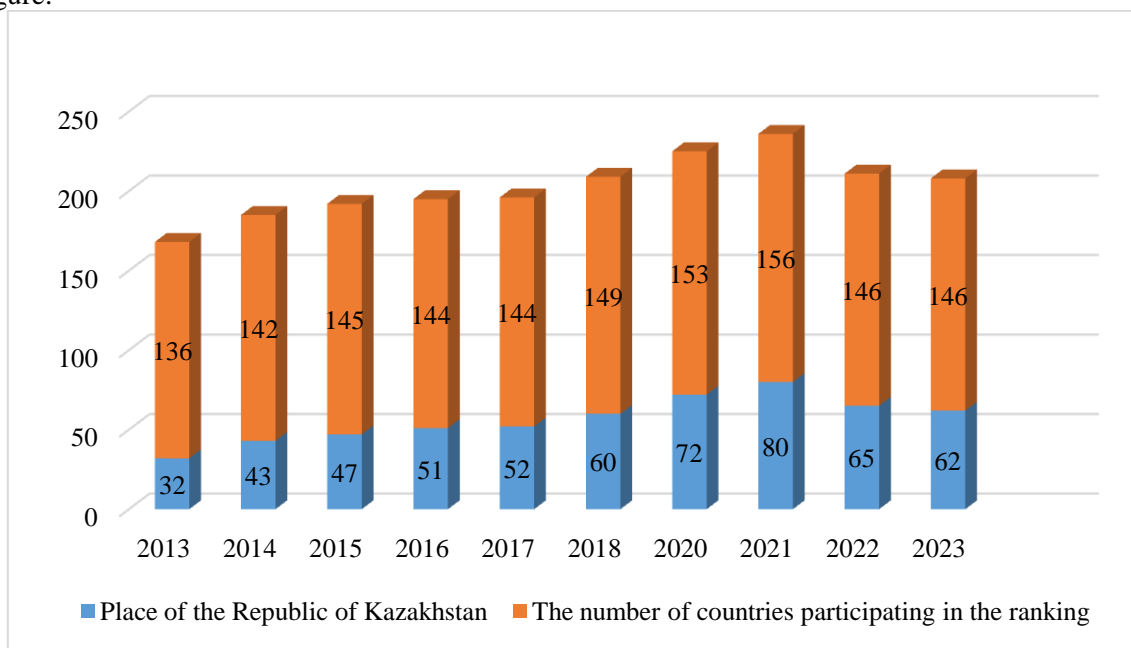


Figure 1. Ranking of countries on the gender equality index

Note — compiled by the authors according to the data of the source (World Economic Forum, 2023)

Analyzing the data in the figure, we can say that Kazakhstan over the last 3 years improves its position in this rating. The ranking takes into account equal political opportunities, equal access to education, health and survival, gender pay gap and equal opportunities in the labour market. From 2013 to 2021, Kazakhstan witnessed a negative trend towards the establishment of gender equality in areas of human life. However, since the adoption of the United Nations Agenda for Sustainable Development to 2030, progress has been made. In 2022, Kazakhstan improved its performance on gender inequality and rose from 80 to 65 in the global ranking.

It should be noted that, within the criteria under consideration, Kazakhstan has achieved full equality in access to school and vocational education for both sexes, representing an outstanding indicator in this area. The high scores were also recognized in the context of the health and survival criteria, which include healthy life expectancy and gender equality at birth. The country ranked 27th and 44th respectively.

With regard to opportunities in the labour market, Kazakhstan ranks 46th on the criterion of equal wages for the same amount of work, 51st on the level of participation in the labour force, and leads in the first place in the equal representation of women among highly skilled and semi-skilled workers.

It should be noted, however, that on the criterion of equal access to political rights and opportunities, the country ranks relatively low at 103 out of 146 countries. This dynamic is characteristic of the entire Central Asian region, emphasizing the importance of the active involvement of women in the highest political representative and executive bodies (Ministerstva truda i sotsial'noi zashchity naseleniya Respubliki Kazakhstan, 2022).

Analysis of the data presented shows that Kazakhstan improved its position in the world ranking of gender equality in 2023, rising from 65th to 62nd place from 146 countries. The country's gender equality index was 0.721, indicating progress towards reducing gender inequalities. Despite the positive trend, the country can still strive for additional efforts to achieve higher index values and full gender equality (Ranking.kz, 2023).

The Beijing Declaration and Platform for Action adopted at the Fourth World Conference on Women in Beijing in 1995 is an important strategic document for the development of gender equality policies. The Republic of Kazakhstan actively participated in this international event, adopting relevant commitments and integrating the principles of the Beijing Declaration into its national policy (UN Women, 1995).

The Beijing Declaration included a strategic plan of action to eliminate discrimination and violence against women and to advance their status in various spheres of public life. The Platform for Action is a complementary document that specifies measures and strategies to achieve the stated goals. These documents highlight the importance of women's participation in decision-making, equal opportunities in education and health, and the prevention of violence based on gender stereotypes.

Kazakhstan, in its efforts to implement the principles of the Beijing Declaration and Platform for Action, has undertaken a number of significant activities and initiatives to strengthen the status of women and achieve gender equality, including (UN Women, 2018):

1) The Republic of Kazakhstan is systematically implementing its National Strategy «Kazakhstan-2050», within the framework of which measures to ensure gender equality in key areas such as education, health and the labour market are being actively introduced.

2) State efforts are aimed at actively increasing the participation of women in the political life of Kazakhstan. Instruments such as quotas and other incentives were an important part of the strategy to encourage women to participate in elections and to occupy important positions in government.

3) Kazakhstan is taking measures to guarantee equal access to education and health care for women and men. These measures include programmes to address gender inequalities in the education system and to improve women's access to quality health services.

4) Kazakhstan has taken effective steps to prevent and combat gender-based violence. The introduction of appropriate laws and measures helps to prevent and punish incidents of violence.

5) The implementation of special education and information campaigns on gender issues aims at raising public awareness and contributes to changing stereotypes, creating a more inclusive and equal society.

These works underline Kazakhstan's desire to create a society where women and men can fully participate in economic, political and social life, and gender equality is an integral part of the national development strategy.

In order to quantify the progress made in Kazakhstan in all items of the list of such works, it is possible to see the indicators of the index of gender inequality (UNDP, 2022).

The Gender Inequality Index (GII) measures gender inequality in three key areas — reproductive health, empowerment, and the labour market — for many countries, within data of reasonable quality. It measures the losses in potential human development caused by the inequality between women's and men's achievements in these dimensions (UNDP, 2022). In the course of this study, according to data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, an analysis of the index of gender inequality in the Republic of Kazakhstan, which is presented in table 1.

Table 1. Constituent indicators of the index of gender inequality in the Republic of Kazakhstan

Year	Gender inequality index	Constituent indicators:							
		Maternal mortality rate (per 100,000 live births)	Birth rate (per 1,000 women aged 15–19)	Seats in the Majilis of Parliament, gender ratio		Proportion of population aged 15 and over with at least secondary education		Percentage of economically active population of working age	
				men	women	men	women	men	women
2013	0,375	12,6	33,64	0,738	0,262	0,845	0,849	0,842	0,794
2014	0,372	11,7	34,72	0,738	0,262	0,853	0,858	0,845	0,788
2015	0,369	12,8	30,83	0,733	0,267	0,860	0,866	0,849	0,792
2016	0,370	12,7	32,13	0,724	0,276	0,875	0,868	0,851	0,784
2017	0,350	12,5	24,93	0,726	0,274	0,876	0,884	0,850	0,785
2018	0,351	13,9	23,90	0,724	0,276	0,884	0,892	0,854	0,803
2019	0,351	13,7	23,20	0,726	0,274	0,891	0,901	0,860	0,802
2020	0,426	36,5	22,92	0,735	0,265	0,899	0,901	0,852	0,786
2021	0,441	44,7	23,80	0,726	0,274	0,906	0,918	0,857	0,792
2022	0,357	17,0	19,70	0,731	0,269	0,914	0,927	0,853	0,787

Note — compiled by the authors according to the data of the source (Bureau of National Statistics of the Republic of Kazakhstan, 2022)

Analysis of the data shows that some indicators of gender equality have improved between 2013 and 2022, and there is instability in certain indicators after 2020, which requires further research to identify the causes and take appropriate measures to improve the situation. Let us move on to the analysis of each indicator, including:

1) The index of gender inequality in Kazakhstan ranges from 0.350 to 0.441 between 2013 and 2022. The lowest point was in 2017 (0.350) and the highest was in 2021 (0.441). This points to a pattern of gender inequality, but in general inequality remains high.

2) The maternal mortality rate fell by 50 per cent between 2013 and 2022, indicating successful measures to improve health and medical care for pregnant women.

3) The fertility rate (per 1,000 women aged 15–19) fell by about 30 per cent between 2013 and 2022, which may reflect a more informed decision to start a family and have children among young women.

4) The ratio of men to women in the Majilis of the Parliament has remained stable at over 70 per cent since 2016. This reflects a desire to ensure the participation of women in decision-making.

5) The percentage of people in secondary education is increasing from 2013 to 2022, indicating improved access to education in the country.

6) The economic activity of the population of working age, especially women, remains high, but there has been a slight decrease after 2020 (Bureau of National Statistics of the Republic of Kazakhstan, 2022).

The clearly shows that the tasks outlined in the Beijing Declaration are being carried out in a positive direction every year in Kazakhstan.

Changes in the labor market from 2013 to 2022 after the introduction of international agreements are shown in Table 2.

Table 2. The main indicators of the labor market of the Republic of Kazakhstan by gender

Year	The unemployed population is in the thousands		The employed population is in the thousands		Gender pay gap, tenge	
	men	women	men	women	men	women
2013	210,0	260,7	4 389,4	4 181,3	129 382	87 677
2014	195,9	256,0	4 389,3	4 120,7	144 183	96 545
2015	199,6	254,7	4 371,2	4 062,1	151 694	99 911
2016	203,9	241,6	4 440,4	4 113,0	169 352	116 108
2017	205,3	237,0	4 458,9	4 126,3	179 575	121 793
2018	202,1	241,6	4 474,7	4 220,3	195 959	129 039
2019	204,3	236,3	4 535,4	4 245,4	222 514	150 779
2020	209,6	239,2	4 519,5	4 212,5	243 524	182 679
2021	201,7	247,9	4 554,9	4 252,2	281 239	220 160
2022	208,1	250,2	4 673,3	4 298,3	355 296	265 762

Note — compiled by the authors according to the data of the source (Bureau of National Statistics of the Republic of Kazakhstan, 2022)

Over this period, unemployment population for both genders generally decreased, although they fluctuated slightly, with men's unemployment falling from 210,000 in 2013 to 208,100 in 2022, and women's unemployment declining from 260,700 to 250,200. The employed population saw a steady increase, particularly among women, whose numbers rose from 4.18 million in 2013 to 4.30 million in 2022. Men's employment also grew from 4.39 million to 4.67 million over the same period, reflecting an overall improvement in labor market conditions following the introduction of international agreements.

Based on the data for the period from 2013 to 2022, we note the trend of increasing wages for both men and women. However, in each of the years under review, men's wages significantly exceed women's wages. For example, in 2013, men's wages were 129,382, while women's wages were 87,677. This means that the wage gap between men and women was 41,705, or about 32.2 % of men's wages.

Similarly, in 2022, men's wages were 355,296, while women's wages were 265,762. This means that the wage gap between men and women was 89,534, or about 25.2 % of men's wages.

Despite the challenges posed by the COVID-19 pandemic, employment figures and wage differences have generally improved, suggesting that the introduction of international agreements may have contributed to enhancing the labor market conditions in the country. However, persistent gender disparities in unemployment rates and wages highlight the ongoing need for targeted policies to achieve greater gender equality in the labor market.

The situation on the labor market in Kazakhstan has improved markedly after the adoption of the Sustainable Development Goals (SDGs) The UN in 2015. The data shows that between 2013 and 2022, there was an increase in employment and wages for both groups, despite the persistent wage gap between men and women. The introduction of international agreements related to the SDGs has stimulated the development of national programs and strategies aimed at improving working conditions and increasing employment for both men and women.

According to the Voluntary National Review of the Government of the Republic of Kazakhstan in 2022 on the implementation of the UN SDGs, in the coming years, the following works will be carried out by interested state and public bodies in accordance with the provisions of international treaties:

1) Strengthening the institution of the family by building family relations based on the principle of equal partnership between men and women, ensuring equal distribution of parental responsibilities in the field of upbringing, education and development of children, as well as care and support for the elderly.

2) Increasing the accessibility and focus of state social support for families.

3) Prevention of domestic violence against children and women.

4) Strengthening the Institution of Gender Equality.

5) Economic and political empowerment of women.

6) Promoting gender education and women's active participation in peace and security.

7) Consideration of gender-sensitive budgeting mechanisms (Institute of Economic Research of Kazakhstan, 2022).

At present, despite significant progress in gender equality in the spheres of life, there are still challenges in the field of gender equality that require attention and solutions that have yet to be addressed:

1) Unequal employment conditions, wage differences between the sexes and the participation of the economically active population in the labor market. In the field of employment, there are cases of discrimination against women based on their gender.

2) The underrepresentation of women in politics, especially at the highest levels of government. 55 % of civil servants in Kazakhstan are women, but men predominate in senior positions.

3) Support the creation of equal opportunities for women in the economic sphere, including entrepreneurship and financial independence.

Solving these problems requires a comprehensive approach from the State, public organizations and international partners. In this regard, the following recommendations are proposed to improve gender equality in the Republic of Kazakhstan:

1. The authorized body in the field of labor should implement stricter measures of control and transparency in the field of employment in order to ensure wage equality and eliminate discrimination based on gender. Conduct regular audits and inspections of companies, as well as implement awareness-raising and training programs for employers.

2. The Agency for Civil Service Affairs should develop and implement quotas for women at all levels of political and public authority, as well as support leadership and mentoring programs for women. This will help to increase their participation in decision-making and ensure a more balanced representation in senior positions.

3. The authorized body in the field of employment should create programs and initiatives to support women's entrepreneurship, including financial grants, consultations and training for women who want to start their own business. Ensure equal opportunities for women in the financial sector and promote their economic independence.

These recommendations will help eliminate existing problems and contribute to the improvement of the status of women in Kazakhstan, which, in turn, will have a positive impact on the labor market and increase the country's position in the world rankings of gender equality.

Conclusions

In conclusion, Kazakhstan has made significant progress in achieving gender equality, especially over the past decade, through the implementation of international agreements and national policies. The country has improved its ranking in the global gender equality indices, demonstrating progress in education, health and labor market participation. Nevertheless, the implementation of the principles of gender equality in the country remains underdeveloped compared to advanced countries such as Iceland, Finland, Norway, Sweden, etc. both qualitatively and quantitatively (World Economic Forum, 2023).

The scientific novelty of the study lies in the fact that a comprehensive analysis of changes in gender equality indicators in Kazakhstan was conducted for the period from 2013 to 2022, which allows us to identify both positive trends and instability of individual indicators after 2020. This, in turn, makes it possible to identify new challenges and problems that have arisen in the field of gender inequality, such as gender differences in wages and employment, which require further research and the development of targeted measures.

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Халықаралық гендерлік келісімдердің Қазақстан Республикасының еңбек нарығына экономикалық әсері

Аңдатпа

Мақсаты: Халықаралық гендерлік келісімдердің Қазақстандағы еңбек нарығына экономикалық әсерін зерделеу, оларды іске асырудағы бар кедергілерді анықтау және гендерлік теңдікті арттыру және елдің экономикалық көрсеткіштерін нығайту үшін ұсынымдарды тұжырымдау.

Әдісі: Бейінді ғылыми әдебиеттерді және нормативтік-құқықтық базаны талдау, зерттеудің теориялық және практикалық әдістері, жалпылау және болжау.

Қорытынды: Қазақстанда гендерлік теңдік туралы халықаралық шарттардың іске асырылуын талдау барысында белгілі бір үрдістер анықталды. Саясаттағы әйелдердің білімі мен өкілдігіне қол жетімділіктің жақсаруы байқалады, бірақ тең еңбек мүмкіндіктері проблемалары қалады, бұл нақты гендерлік теңдікті қамтамасыз ету үшін қосымша күш-жігерді қажет етеді.

Тұжырымдама: Соңғы үш жылда Қазақстанда білім беру, денсаулық сақтау және еңбек нарығында тең мүмкіндіктерді қамтамасыз етуде айтарлықтай прогресс байқалады. Алайда, халықаралық келісімдерді жүзеге асыруда мақала авторлары талдауға тырысатын белгілі бір қиындықтар анықталды. Мақалада Қазақстандағы гендерлік саясатты жақсартудың нақты жолдары-авторлардың пікірінше, осы саладағы ағымдағы жағдайды айтарлықтай жақсарту алатын бірінші кезектегі шаралар тізімі ұсынылған.

Кілт сөздер: Қазақстан, гендерлік алшақтық, халықаралық шарттар, гендерлік теңдік, жұмыспен қамту, орнықты даму мақсаты, еңбек нарығы

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Экономическое влияние международных гендерных соглашений на рынок труда Республики Казахстан

Аннотация

Цель: Изучение экономического влияния международных гендерных соглашений на рынок труда в Казахстане, выявление существующих барьеров в их реализации и формулирование рекомендаций для повышения гендерного равенства и укрепления экономических показателей страны.

Методы: Анализ профильной научной литературы и нормативно-правовой базы, теоретический и практический методы исследования, обобщение и прогнозирование.

Результаты: В ходе анализа реализации международных договоров о гендерном равенстве в Казахстане выявлены определенные тенденции. Наблюдаются улучшения в доступе к образованию и представительстве женщин в политике, но остаются проблемы с равными трудовыми возможностями, что требует дополнительных усилий для обеспечения реальной гендерной равноправности.

Выводы: За последние три года в Казахстане наблюдается значительный прогресс в обеспечении равных возможностей в сферах образования, здравоохранения и на рынке труда. Однако в реализации международных соглашений выявлены определенные трудности, которые авторы статьи пытаются проанализировать. В статье предложены конкретные пути улучшения гендерной политики в Казахстане — список первоочередных мер, которые, по мнению авторов, смогут существенно улучшить текущую ситуацию в данной области.

Ключевые слова: Казахстан, гендерный разрыв, международные договоры, гендерное равенство, занятость, цель устойчивого развития, рынок труда

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Assessment of Digitalization in Higher Education: A Case Study of Turan University

Abstract

Object: This study evaluates the impact of digitalization on the operational performance, teaching, learning outcomes, and student experiences at Turan University.

Methods: Employing a mixed-methods approach, the research utilized a comprehensive questionnaire distributed to 86 students, alongside interviews with faculty to gauge the effectiveness of digital tools and platforms implemented across the university.

Findings: The analysis reveals a generally positive perception of digital infrastructure and educational practices among students. High levels of satisfaction were noted in areas such as the availability of digital resources in the library and the use of digital technologies by teachers. However, variations in satisfaction regarding accessibility to necessary digital devices and the cost implications of digital tools indicate areas needing improvement.

Conclusion: While Turan University has made significant strides in integrating digital technologies, the study identifies critical gaps in technological accessibility and financial aspects of digital usage. Addressing these gaps is essential for enhancing the overall effectiveness of digitalization efforts and ensuring equitable access to digital resources for all students.

Keywords: Digitalization, Higher Education, Turan University, Educational Technology, Likert Scale, Student Experience, Online Learning.

Introduction

In the contemporary landscape of higher education, digitalization stands as a transformative force, reshaping the means through which educational content is delivered and engaged with by students. As institutions across the globe increasingly incorporate digital technologies into their academic and administrative frameworks, it becomes crucial to assess not only the extent of these integrations but also their impact on educational quality and accessibility. Turan University, recognized for its proactive approach to incorporating technology within its academic programs, provides a compelling case study in this regard.

This study aims to evaluate the effectiveness of digitalization at Turan University by exploring various facets such as infrastructure, tools for educational practice, and student engagement with digital platforms. The importance of this research lies in its potential to identify strengths and areas for improvement within the university's digital strategy, offering insights that could guide future enhancements. Moreover, the expediency of this assessment is underscored by the increasing reliance on digital solutions in education—a trend accelerated by global challenges such as the COVID-19 pandemic, which has necessitated a swift and efficient adoption of remote and hybrid learning modalities.

By analyzing student perceptions and feedback on the use of digital technologies at Turan University, this paper seeks to contribute to the broader discussion on how higher education institutions can effectively leverage digital tools to enrich learning experiences and outcomes. This introduction sets the stage for a detailed examination of how well Turan University has succeeded in integrating digital technologies into its educational ecosystem and highlights the implications of these efforts for students, faculty, and the institutional strategy at large.

Literature review

University digitalization encompasses the integration of digital technologies and strategic initiatives aimed at enhancing the functions of higher education institutions. This transformation involves the adoption of innovative technologies, restructuring organizational strategies, and implementing digital workflows to improve operational effectiveness, teaching quality, learning outcomes, and the overall student experience

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(McCusker & Babington, 2015; Hess et al., 2016). A significant shift towards digital learning platforms includes the incorporation of advanced technologies such as artificial intelligence and cloud computing, fundamentally altering how educational services are delivered and experienced.

McCusker and Babington (2015) argue that adopting new technologies necessitates a strategic overhaul that impacts multiple facets of the institution, including information management, processes, and human aspects. Similarly, Hess et al. (2016) describe digital transformation as a change in an organization’s business model triggered by the adoption of emerging digital technologies, which results in structural alterations and the evolution of its products and services. This broad-based change is aimed at enhancing efficiency, creating added value, and aligning with evolving student expectations and industry standards.

The impetus for these transformations often stems from the demands of modern students who seek a flexible, personalized, and real-time educational experience (Hoskins, 2018; Yesner, 2020). According to research by Stokes et al. (2019), university leaders recognize that the core of digital transformation is centered on the students, with technology serving as a facilitative tool. The majority of these leaders believe that improving the student experience is the most critical outcome of digital initiatives, followed by meeting student demands.

Further emphasizing the student-centric approach, Prasanna and Choudhury (2013) suggest that student satisfaction is crucial as it serves as a potent advertisement for the university. Spies (2017) and Seres et al. (2018) note that the ultimate goal of digitalizing higher education should be to create innovative ways of working that focus on delivering user-centered services. This aligns with the broader notion that digitalization should improve business operations or create new revenue streams using digital technologies and data (Chapco-Wade, 2018; i-SCOOP, n.d.; Muro et al., 2017).

Assessing the maturity of digital initiatives is also vital as it helps to determine the digital readiness of an institution against industry standards and identify areas requiring enhancement (Kane et al., 2017; Durek et al., 2018). This assessment is not only a gauge of current capabilities but also a roadmap for future development.

In summary, the literature underscores the transformative impact of digital technologies on higher education, highlighting the importance of strategic implementation and continuous evaluation to meet the dynamic needs of students and the educational sector. This review sets the stage for examining how Turan University's digitalization efforts compare with these broader trends and expectations in the realm of higher education.

Methods

This study was conducted to assess the level of digitalization at Turan University by capturing the perceptions and experiences of Bachelor students regarding the digital technologies and resources available to them. A cross-sectional survey design was utilized, targeting students from the 1st to 4th year across various disciplines.

The primary participants of this survey were Bachelor students enrolled at Turan University. The study targeted a diverse group of students from all four academic years to ensure a comprehensive understanding of the digitalization across the student body.

The data collection tool was a structured questionnaire designed to evaluate the extent and effectiveness of digital technology integration within the university. The questionnaire was prepared using Google Forms and was specifically designed not to record any identifying information about the respondents, ensuring their anonymity. The questionnaire consisted of 21 questions, each structured on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). Also, questions divided into 6 different groups of indicators. These questions were crafted to gather insights on several dimensions of the university's digital environment (Table 1):

Table 1. Groups of indicators

№	Groups of indicators	Questions
1	2	3
1	Digital Infrastructure and Accessibility	The university has Wi-Fi internet access The university has computer classes with modern equipment The university has a library with electronic resources Students can receive all the necessary information about their studies electronically.
2	Digital Integration in Educational Practices	Teachers use digital technologies in the teaching process (presentations, videos, online tools) The university has distance learning systems (LMS Canvas) Students can take assignments and exams in electronic form The university provides the opportunity to study according to an individual educational trajectory

Continuation of Table 1.

1	2	3
3	Electronic Interaction and Communication	Students can receive all the necessary information about their studies in electronic form The university has an electronic document management system (ASU Turan) Students can communicate with teachers and staff of the university through electronic channels communications The university has a digital feedback system for students
4	Technological Accessibility and Support	All students have access to the necessary digital devices (laptops, tablets) The cost of studying at the university is not an obstacle to the use of digital technologies The university has programs to support students who do not have access to digital technologies
5	Digital Competence and Capacity Building	University students are proficient in computer and digital tools. The university has programs to train students in digital skills. University teachers have the skills to use digital technologies in education.
6	Student Perceptions and Recommendations	I am satisfied with the level of digitalization of the educational process at the university. I believe that the university uses digital technologies to improve the quality of education. I recommend other students to enroll to this university

Note – compiled by the author

Data collection was carried out over a period of two months, using online-based surveys to ensure maximum participation. The links to questionnaire was distributed during class sessions. Responses were encoded and analyzed using statistical software (Orange). Descriptive statistics, such as means and standard deviations, were calculated for each question to assess the general trends in student responses.

Results

The study involved a total of 86 Bachelor students from Turan University, spanning all years and a variety of academic disciplines. The collected data was analyzed using descriptive statistics to gauge the level of digitalization across the university. Here, we present the summarized results based on the responses to the 21 questions, each rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Table 2. Digital Infrastructure and Accessibility indicators analysis

№	Question	Mean	Mode	Median	Dispersion	Min	Max
Digital Infrastructure and Accessibility							
1	The university has Wi-Fi internet access	3.59	5	4	0.37	1	5
2	The university has computer classes with modern equipment	4.20	5	4	0.23	1	5
3	The university has a library with electronic resources	4.33	5	5	0.22	1	5
4	Students can receive all the necessary information about their studies electronically.	4.09	5	4	0.25	1	5

Note – compiled by the author

The table presented above examines the results of the analysis of Digital Infrastructure and Accessibility group indicators. The average rating for Wi-Fi internet access at Turan University is 3.59, suggesting a moderately favorable perception among students. The mode being 5 indicates that the most frequently given response was highly positive, reflecting that a significant subset of students are very satisfied with the Wi-Fi service. The median score of 4 further supports this positive trend. However, the dispersion value of 0.37, while relatively low, indicates that there is some variability in the responses. This variability suggests that while many students are satisfied, a few may be experiencing issues with Wi-Fi connectivity that could be addressed to enhance overall satisfaction.

Computer classes equipped with modern technology received a high mean score of 4.20, indicating strong student approval. The mode of 5 suggests that the most common response was very positive, with many students finding the computer facilities to be up-to-date and well-maintained. The median score of 4 aligns with these findings, indicating broad satisfaction. The relatively low dispersion of 0.23 highlights a consensus among the students about the quality and adequacy of the computer equipment, suggesting that the university is effectively meeting technological needs in this area.

The university's library with electronic resources received the highest approval with a mean score of 4.33. Both the mode and median scores are 5, indicating that the majority of students rate the electronic library resources very highly. This uniformity is underscored by the very low dispersion of 0.22, which shows that there is little variability in how students perceive the library's digital offerings. This indicates a highly successful integration of electronic resources in the library, meeting the academic needs of students effectively.

The accessibility of academic information electronically holds a mean score of 4.09, reflecting a positive student experience. With the mode at 5, it shows that many students find it very easy to access necessary information for their studies online. The median score of 4 supports this positive trend. A dispersion of 0.25, while still low, suggests a slight variation in responses, indicating that improvements could still be made to ensure that all students find it equally straightforward to access academic information electronically.

Table 3. Digital Integration in Educational Practices indicators analysis

№	Question	Mean	Mode	Median	Dispersion	Min	Max
Digital Integration in Educational Practices							
5	Teachers use digital technologies in the teaching process (presentations, videos, online tools)	4.45	5	5	0.17	3	5
6	The university has distance learning systems (LMS Canvas)	4.47	5	5	0.19	1	5
7	Students can take assignments and exams in electronic form	4.50	5	5	0.20	1	5
8	The university provides the opportunity to study according to an individual educational trajectory	3.43	5	3.50	0.41	1	5
<i>Note – compiled by the author</i>							

The table presented above examines the results of the analysis of Digital Integration in Educational Practices group indicators. The utilization of digital technologies by teachers at Turan University, including presentations, videos, and online tools, received a high mean score of 4.45. This suggests a strong positive reception among students towards the digital integration within the teaching process. The mode and median both standing at 5 further demonstrate that the majority of students rate this aspect highly. The low dispersion of 0.17 indicates minimal variability in responses, pointing to a consistent satisfaction.

The implementation of distance learning systems, specifically the Learning Management System (LMS) Canvas, garnered a mean score of 4.47. Similar to the previous indicator, both the mode and median are at 5, indicating that the majority of students are very satisfied with the LMS provided by the university. The dispersion of 0.19, slightly higher than the previous but still low, reflects a strong consensus among students about the effectiveness and reliability of the LMS Canvas in supporting their learning needs.

The facility for students to complete assignments and exams electronically received the highest approval in this category with a mean score of 4.50. The mode and median are also at 5, reflecting that most students find the electronic submission and assessment processes to be highly satisfactory. The dispersion of 0.20, though slightly higher than the other digital teaching tools, remains low, indicating that students generally agree on the efficacy and convenience of electronic assessments.

The opportunity for students to study according to an individual educational trajectory received a mean score of 3.43, which is notably lower compared to the other aspects of digital integration. Although the mode is at 5, suggesting that some students are highly satisfied, the median of 3.50 and a higher dispersion of 0.41 indicate more variability in the responses. This suggests mixed feelings among the student body, with some students likely feeling that the university could improve how it facilitates personalized learning paths.

Table 4. Electronic Interaction and Communication indicators analysis

№	Question	Mean	Mode	Median	Dispersion	Min	Max
Electronic Interaction and Communication							
9	Students can receive all the necessary information about their studies in electronic form	4.13	5	4	0.27	1	5
10	The university has an electronic document management system (ASU Turan)	4.42	5	5	0.19	1	5
11	Students can communicate with teachers and staff of the university through electronic channels communications	4.20	5	5	0.25	2	5
12	The university has a digital feedback system for students	4.01	5	4	0.29	1	5
<i>Note – compiled by the author</i>							

The table presented above examines the results of the analysis of Electronic Interaction and Communication group indicators. Students' ability to access all necessary information about their studies in electronic form at Turan University is rated positively, with a mean score of 4.13. The highest frequency of responses is at the upper end (mode of 5), indicating that many students are very satisfied with the electronic accessibility of study-related information. The median score of 4 supports a general satisfaction trend. However, a dispersion of 0.27 and the full range of responses from 1 to 5 suggest that experiences vary among the student body, with some students facing challenges in accessing information electronically.

The university's electronic document management system (ASU Turan) receives high approval, as indicated by a mean score of 4.42. Both the mode and median at 5 demonstrate that the majority of students highly appreciate the effectiveness and efficiency of this system. The relatively low dispersion of 0.19 points to a consensus among students regarding the system's performance, further confirmed by the lack of lower end responses (minimum at 1).

The facility for students to communicate with teachers and staff through electronic channels is rated with a mean of 4.20. This high rating, along with a mode and median of 5, indicates that most students find the digital communication channels effective and reliable. The dispersion of 0.25, though not very high, suggests some variability in satisfaction, which is further evidenced by the minimum score of 2, indicating that improvements could still enhance this communication aspect.

The university's digital feedback system is evaluated with a mean score of 4.01, suggesting overall positive feedback. The mode at 5 and a median of 4 indicate that many students are satisfied with the feedback mechanisms in place. However, a dispersion of 0.29 and the range from 1 to 5 reveal that there are varying degrees of satisfaction, with some students possibly feeling that the feedback system could be more responsive or impactful.

Table 5. Technological Accessibility and Support indicators analysis

№	Question	Mean	Mode	Median	Dispersion	Min	Max
Technological Accessibility and Support							
13	All students have access to the necessary digital devices (laptops, tablets)	3.86	5	4	0.34	1	5
14	The cost of studying at the university is not an obstacle to the use of digital technologies	3.93	5	4	0.29	1	5
15	The university has programs to support students who do not have access to digital technologies	3.85	5	4	0.31	1	5
<i>Note – compiled by the author</i>							

The table presented above examines the results of the analysis of Technological Accessibility and Support group indicators. The mean score for the accessibility of necessary digital devices like laptops and tablets for all students at Turan University is 3.86, indicating a fairly positive perception but with room for improvement. The mode at 5 suggests that a significant number of students are very satisfied with their access to digital devices. However, the median of 4 and a dispersion of 0.34, along with the full range of responses from 1 to 5, show that there is considerable variation in student experiences. This variability points to potential gaps in ensuring that all students have equal access to the necessary technology.

The impact of the cost of studying on the accessibility of digital technologies receives a mean rating of 3.93, suggesting that most students do not view costs as a prohibitive barrier to accessing digital resources. The mode at 5 and median at 4 indicate that many students find the costs associated with digital technology manageable. Nevertheless, the dispersion of 0.29 and responses as low as 1 highlight that for a subset of the student body, financial factors are a significant concern, potentially affecting their ability to fully utilize digital technologies.

The university's support programs for students who do not have personal access to digital technologies are rated with a mean of 3.85. This rating, while moderately positive, suggests that there is significant room for enhancement. The mode and median at 5 and 4, respectively, reflect that while many students are satisfied, the dispersion of 0.31 and the lowest rating at 1 indicate that these programs are not effectively reaching or meeting the needs of all students. This spread of responses suggests the need for a review and possible expansion of these support mechanisms to ensure they are more inclusive and effective.

Table 6. Digital Competence and Capacity Building indicators analysis

№	Question	Mean	Mode	Median	Dispersion	Min	Max
Digital Competence and Capacity Building							
16	University students are proficient in computer and digital tools.	4.29	5	5	0.23	1	5
17	The university has programs to train students in digital skills.	4.01	5	4	0.27	1	5
18	University teachers have the skills to use digital technologies in education.	4.08	5	4	0.26	1	5
<i>Note – compiled by the author</i>							

The table presented above examines the results of the analysis of Digital Competence and Capacity Building group indicators. The proficiency of university students in using computer and digital tools is highly rated, with a mean score of 4.29. This suggests a strong capability among the student body in handling digital technology effectively. The most frequent response is 5, showing that many students consider themselves highly skilled. The median of 5 supports this view of high competence among students. The relatively low dispersion of 0.23, along with a minimum score of 1, indicates that while the vast majority are comfortable with digital tools, there are outliers who may require additional support.

The availability and effectiveness of programs to train students in digital skills have a mean score of 4.01, indicating a generally positive reception. The mode of 5 and a median of 4 suggest that most students appreciate these training programs, though the dispersion of 0.27 and the full range of scores from 1 to 5 reflect some variability in how students perceive these offerings. This variability might highlight areas where the training programs could be tailored to better meet diverse student needs or to cover gaps in digital skill-sets.

The competence of university teachers in using digital technologies in education receives a mean score of 4.08, showing a good level of skill among faculty members. The mode at 5 and a median of 4 indicate that most students are satisfied with their teachers' ability to integrate digital tools into the learning process. However, the dispersion of 0.26 and responses ranging from 1 to 5 suggest that while many teachers are adept at using digital technologies, there may be some inconsistency, with a few educators possibly lacking the necessary skills or not utilizing digital tools effectively in their teaching.

Table 7. Student Perceptions and Recommendations indicators analysis

No	Question	Mean	Mode	Median	Dispersion	Min	Max
Student Perceptions and Recommendations							
19	I am satisfied with the level of digitalization of the educational process at the university.	4.10	5	4	0.25	1	5
20	I believe that the university uses digital technologies to improve the quality of education.	4.22	5	5	0.22	1	5
21	I recommend other students to enroll to this university	3.74	5	4	0.33	1	5

Note –compiled by the author

The table presented above examines the results of the analysis of Student Perceptions and Recommendations group indicators. The overall satisfaction with the level of digitalization at Turan University is assessed with a mean score of 4.10, indicating that students generally feel positively about the integration of digital technologies in the educational process. The mode of 5 suggests that the most common response is very positive, with many students highly satisfied. The median of 4 supports a general trend of approval, though a dispersion of 0.25 and the range of scores from 1 to 5 point to some diversity in opinion. This variation highlights that while most students are content with the digitalization efforts, there are some who may feel that improvements are necessary.

Students' beliefs that digital technologies enhance the quality of education have a mean score of 4.22, reflecting a strong affirmative perception. Both the mode and median at 5 emphasize that a significant portion of the student body highly values the contributions of digital technologies to their educational experience. The dispersion of 0.22 indicates a relatively high consensus among students on this positive impact, though the minimum score of 1 reveal that not all students share this view.

The likelihood of students recommending Turan University to others based on its digitalization has a mean score of 3.74, which is somewhat lower compared to other indicators. The mode at 5 shows that many students would recommend the university, yet the median of 4 coupled with a higher dispersion of 0.33 suggests more variability in this sentiment. The range from 1 to 5 indicates a broad spectrum of opinions, from strong endorsements to significant reservations, suggesting that while many students are enthusiastic advocates, others may have concerns that could influence their recommendations.

Discussions

The student responses from Turan University provide a valuable gauge of the effectiveness of digital technologies in enhancing educational experiences. While overall sentiment is positive, variations in satisfaction levels invite a deeper examination of how digital resources are implemented and perceived across different student segments.

The data indicates a strong belief among students that digital technologies enhance the quality of education, with an average rating of 4.22 and a mode of 5. This reflects well on the university's strategic integra-

tion of technologies such as LMS Canvas and digital library resources, which are critical in modern education frameworks. However, the minimal score of 1 suggests that there are occasional but significant discrepancies in how digital resources meet educational needs. This might be due to inconsistent usage of digital tools among faculty or possibly technical issues that hinder their effective application in some courses. Enhancing faculty training and ensuring robust technical support can address these inconsistencies, fostering a more uniformly positive educational impact.

Although the general satisfaction with digitalization efforts is high (mean of 4.10), the presence of lower ratings and a dispersion of 0.25 indicates diverse experiences among the student body. Such diversity may stem from varying expectations about digital accessibility and utility, or disparities in how digital tools are deployed across different disciplines. It is crucial for the university to identify specific areas where digital services may fall short and work towards a more inclusive digital environment. Conducting focused group discussions or surveys to pinpoint these areas can help tailor digital solutions that better cater to all student needs.

The recommendation to prospective students based on digital offerings has the lowest average score (3.74) among the indicators, pointing to potential reservations about endorsing the university purely based on its digital capabilities. While many students are satisfied (mode of 5), the broader range of responses and a higher dispersion suggest that the decision to recommend involves factors beyond mere satisfaction with digital tools. These could include considerations of overall academic quality, cost-effectiveness, and perhaps the integration of digital tools with career-preparatory resources. Turan University might benefit from integrating digital strategies with career development programs and ensuring that digital tools are not only advanced but also relevant to the professional aspirations of students.

Conclusion

The assessment of digitalization at Turan University reveals a landscape where digital technologies significantly enhance the educational environment, as evidenced by generally high levels of student satisfaction across several key metrics. Students largely appreciate the integration of digital tools and platforms, which have been shown to improve the accessibility of resources and the quality of education. Particularly, the strong endorsements of digital tools in the teaching process and the university's digital infrastructure highlight successful aspects of the university's digital strategy.

However, the findings also illuminate areas requiring attention to maximize the potential of digital technologies. Notably, the variability in satisfaction concerning the recommendation of the university based on its digitalization efforts suggests that while many students are pleased with the digital resources, there is a critical need for enhancements that align more closely with student expectations and academic outcomes. This includes addressing the gaps in technological support and accessibility, particularly for students who may not have easy access to digital devices or those finding the cost of digital technology a barrier to its effective use.

To further elevate its status as a digitally advanced institution, Turan University should consider implementing more robust support systems for students lacking digital access, enhancing training programs for both students and faculty to ensure proficient use of digital tools, and integrating student feedback more directly into the ongoing development of digital strategies. Such initiatives will not only improve the effectiveness of digital resources but also enhance the overall academic experience, thereby increasing the likelihood of positive recommendations from its student body.

To enhance the digital capabilities of Turan University and align more closely with student expectations and academic outcomes, several key recommendations are proposed:

Establish a Technology Access Program: Turan University should create a technology access program that provides students with subsidized digital devices and technical support. This program would require an initial budget allocation of approximately 20 million tenge, aimed at purchasing and maintaining digital devices for loan or subsidized sale. The outcome of this initiative would likely be increased access to digital tools for economically disadvantaged students, resulting in improved academic engagement and performance.

Implement Comprehensive Digital Literacy Training: The university should introduce comprehensive training programs for both students and faculty to ensure proficient use of digital tools. An estimated budget of 4 million tenge per year would cover the development and delivery of these training sessions, including hiring external experts and creating online resources. The expected outcome would be a more technologically adept university community that can fully leverage digital resources for educational excellence.

Develop an Integrated Student Feedback System: A system should be established to integrate student feedback directly into the ongoing development of digital strategies. This would involve an initial investment of 2 million tenge to develop a digital feedback platform and process, including regular surveys and focus groups. The potential outcome is a more responsive and adaptive digital strategy that aligns with student needs and expectations, thereby enhancing overall satisfaction and the likelihood of positive recommendations.

Regular Assessment of Digital Resource Effectiveness: The university should regularly monitor and evaluate the effectiveness of its digital resources. A budget of 500 thousand tenge annually should be allocated for this assessment, which would fund data collection, analysis, and reporting tools. This would help the university in making informed decisions to continuously improve digital resource effectiveness, thereby enhancing both student satisfaction and academic results.

Promote Digital Inclusivity: An initiative to promote a culture of digital inclusivity should be launched, with a focus on ensuring that all students are aware of and can benefit from the digital resources available. A budget of 1 million tenge would support marketing and outreach efforts to communicate the benefits of digital resources across campus. The expected outcome would be an increase in the use of digital resources across the entire student body, leading to a more inclusive and equitable academic environment.

Publicize the benefits and opportunities provided by the university's digital resources through various channels to ensure all students are aware and can take advantage of them.

In sum, Turan University has made commendable strides in incorporating digital technologies into its educational framework. Continued focus on refining these efforts to address uncovered disparities will be vital in fostering an inclusive, effective, and highly regarded digital learning environment.

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Оценка цифровизации в высшем образовании: на примере Университета Туран

Аннотация

Объект: В данном исследовании оценивается влияние цифровизации на операционные показатели, обучение, результаты обучения и опыт студентов в университете Туран.

Методы: Используя смешанный методический подход, исследование включало комплексную анкету, распределённую среди 86 студентов, а также интервью с преподавателями для оценки эффективности цифровых инструментов и платформ, внедрённых в университете.

Результаты: Анализ показывает, что среди студентов в целом положительное восприятие цифровой инфраструктуры и образовательных практик. Высокий уровень удовлетворённости был отмечен в таких областях, как доступность цифровых ресурсов в библиотеке и использование цифровых технологий преподавателями. Однако различия в удовлетворённости доступностью необходимых цифровых устройств и финансовыми аспектами использования цифровых инструментов указывают на области, требующие улучшения.

Выводы: несмотря на значительные успехи университета Туран в интеграции цифровых технологий, исследование выявляет критические пробелы в доступности технологий и финансовых аспектах использования цифровых ресурсов. Устранение этих пробелов необходимо для повышения общей эффективности усилий по цифровизации и обеспечения равного доступа к цифровым ресурсам для всех студентов.

Ключевые слова: Цифровизация, Высшее образование, Университет Туран, Образовательные технологии, Шкала Лайкерта, Опыт студентов, Онлайн-обучение.

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Жоғары білім берудегі цифрландыруды бағалау: Тұран университетінің жағдайлық зерттеуі

Аңдатпа

Мақсаты: Бұл зерттеу цифрландырудың Тұран университетіндегі операциялық өнімділікке, оқытуға, оқу нәтижелеріне және студенттер тәжірибесіне әсерін бағалайды.

Әдістер: Аралас әдістер тәсілін қолдана отырып, зерттеу университетте енгізілген цифрлық құралдар мен платформалардың тиімділігін өлшеу үшін оқытушылармен өзара әрекеттесумен қатар, 86 студентке таратылған жан-жақты сауалнаманы пайдаланды.

Қорытынды: Талдау студенттер арасында цифрлық инфрақұрылым мен білім беру тәжірибесін жалпы оң қабылдауды көрсетеді. Кітапханадағы цифрлық ресурстардың қолжетімділігі және мұғалімдердің цифрлық технологияларды пайдалануы сияқты салаларда қанағаттанушылықтың жоғары деңгейі атап өтілді. Дегенмен, қажетті сандық құрылғыларға қол жеткізуге және цифрлық құралдардың құнына қатысты қанағаттанудағы ауытқулар жақсартуды қажет ететін салаларды көрсетеді.

Тұжырымдама: Тұран университеті цифрлық технологияларды интеграциялауда айтарлықтай жетістіктерге жеткенімен, зерттеу технологиялық қолжетімділік пен цифрлық пайдаланудың қаржылық аспектілеріндегі маңызды олқылықтарды анықтайды. Бұл олқылықтарды жою цифрландыру жұмыстарының жалпы тиімділігін арттыру және барлық студенттер үшін цифрлық ресурстарға тең қолжетімділікті қамтамасыз ету үшін маңызды.

Түйін сөздер: Цифрландыру, Жоғары білім, Тұран университеті, Білім беру технологиясы, Лайкерт шкаласы, Студенттік тәжірибе, Онлайн оқыту

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Measuring human capital's contribution to sustainable economic development

Abstract

Object: The object is research of human capital through education, healthcare, professional skills, social competencies, and their effect on economic sustainability and development.

Methods: The methodological basis of the work is comprised of quantitative methods including regression analysis and econometric modeling.

Findings: The following main results showcase human capital's significant and multifaceted impact on sustainable development parameters:

1) Education and healthcare investments have been revealed to contribute to an increase in productivity and economic growth.

2) Research leads to reduction in poverty and improvement of environmental indicators.

3) Human capital development policy making and implementation as an essential element of achieving sustainable economic development.

Conclusions: This section offers recommendations for politicians and government agencies on how to form strategies for the development of human capital. Results of the study can serve as a basis for the formation of effective strategies to develop human resources in the context of global economic and social challenges.

Keywords: human capital, sustainable development, human resources, education, skills, social and economic challenges, investments, competitiveness.

Introduction

In contemporary reality, both national and global communities can prosper in the long term only if such key elements as sustainable economic development are in place. Among many factors affecting economic sustainability, human capital takes a spotlight determining potential for innovation, productivity, and social inclusion. However, despite the recognition of its importance, methods for measuring human capital's contribution to sustainable development still spark intense debate and research.

The Fourth Industrial Revolution dictates direct dependance of the state's prosperity on the quality of human resources. That is exactly why comprehensive human capital development is of paramount importance.

That being said, education paradigm is in desperate need for changes. Education system's failure to meet modern requirements and, ergo, its stagnation is no surprise for scientists, both foreign and domestic.

This paper explores trends and issues of education system development, factors affecting human capital development in Kazakhstan, and their interaction with economic growth.

This paper is a comprehensive research with a goal to assess human capital's role and contribution to sustainability of economic systems. Authors define human capital through the prism of education, health, skills, and social competencies, investigate their impact on economic sustainability and development. Authors introduce a quantitative approach using regression analysis and econometric modeling to form methodological framework and to measure human capital's input to economic upswing and general welfare.

Above all else, the existing education system operates with the benefit of hindsight, focuses on past, occasionally obsolete, experience, and avoids future orientation (the so-called "supportive learning"), thus uncovering the essence of global education crisis.

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As inevitable modernization of the education system is, it is also a no easy task. Meeting demands of the time is hard but also rewarding as it offers an ultimate transition to a way more effective and dynamic, innovative technology based education system, in which quality of human capital affecting economic advance plays a key role.

Literature Review

For more than two centuries, many economic theoreticians have been thoroughly familiarizing themselves with how human labor abilities develop, form, and apply. Even such prominent personalities as V. Petty (1713), A. Smith (1776), J.S. Mill (1859), and K. Marx (1867) saw useful developed human abilities as part of the concept of basic capital. That interest did not die by the 19th and 20th centuries, when the need and expediency of interpreting humans and their abilities as a peculiar form of basic capital have only grown further. The theory of human capital has only raised the stakes by making academic community accept human investment as a source of economic growth just as important as a more “common” capital investments. It was finally recognized as investment with a long-term, productive effect (Dyatlov S.A. 1994).

Having looked into various concepts of human capital, authors define it as a complex, multifaceted economic phenomenon with a whole multitude of forms. We believe human capital to represent a set of economic relations arising in social production between its subjects who explore how human abilities accumulate, develop, and improve.

The research literature focusing on human capital is vast and multidimensional. Such authors as Becker (1964) and Schultz (1961) have initiated a systematic analysis of education and health’s role in economic growth. And still, there is a significant gap in research concerning specific mechanisms via which human capital affects various aspects of sustainable development. On top of that, questions remain how exactly to measure this contribution and which factors are most significant.

More recent studies emphasize the need for a comprehensive approach to human capital measurement that does not stop on traditional indicators, such as education and health, but also considers broader aspects, including social inclusion and innovation level (Nafukho et al., 2004; Sweetland, 1996). This notwithstanding, the existing measurement methodologies often disregard these aspects (Fraunhofer-Gesellschaft, 2023).

This study uses statistical data from the Ministry of Education and Science, the OECD and the World Bank (World Bank 2018, 2020, 2021), Kazinform (2019), National Chamber of Entrepreneurs of the Republic of Kazakhstan Atameken (2019), President’s Messages to the people of Kazakhstan, Tokaev K-Z. (2023), Center for the Bologna Process and Academic Mobility of the Ministry of Education and Science of the Republic of Kazakhstan (2023), Bureau of national statistics agency for strategic planning and reforms of the Republic of Kazakhstan (2022), and scientific articles by A.S. Baktymbet, S.S. Baktymbet, A. Serikkyzy (2022).

This study assesses various aspects of human capital and their impact on sustainable economic development. Our findings once again stress importance education, health, skills, and social inclusion have given the fact how crucial they are for human capital. This conforms with all the previous studies in this field (Richard Wilkinson & Michael Marmot, 2003, Jeffrey Sachs, 2006).

Education has proven to have the greatest impact on economic development as recognized by many authors, including Gary S. Becker, (1964). Theodore W. Schultz, (1971), Robert J. Barro, (1997), Eric A. Hanushek (2008), Paul M. Romer (1990), and Amartya Sen (1999) who also identified education as a fundamental factor of economic growth.

In this regard, this study’s key challenge is to develop and test an integrated model to measure human capital’s contribution to sustainable economic development that considers both traditional and new factors. Based on the analysis of existing approaches and a critical literature review, the study aims to fill the gaps in knowledge about human capital and sustainable economic development interaction mechanisms.

That said, the research puts forward the following questions:

What indices can measure human capital’s input in sustainable economic development most effectively?

How do different human capital components (e.g. education, health, skills, social inclusion) affect sustainable economic development in diverse contexts?

Does current interpretation of the relationship between human capital and sustainable economic development have any gaps and if it does, how can we fill them using new methodological approaches?

By answering these questions, this research offers a revamped theoretical and methodological concept for approaching and measuring the human capital’s impact on sustainability of economic development.

Methods

The purpose of this study is to measure human capital's contribution to sustainable economic development. To achieve this goal, the following tasks have been defined: 1) Development of a comprehensive methodology to assess human capital's impact on sustainability of economic development, 2) Preliminary data collection and analysis to form an opinion on the state of human capital and sustainable development both worldwide and in Kazakhstan, and 3) Assessment of the relationship between human capital and sustainable development's main indicators.

The study uses a mixed methodological approach combining quantitative and qualitative analysis methods. Such statistical methods as regression analysis compile a quantitative approach while correlation analysis is all about measuring the relationships between human capital and sustainable development indices. A substantive analysis of economic documents, development strategies, and expert interviews is a centerpiece of a qualitative approach to comprehend contextual factors and ways human capital affects economic sustainability.

Data for the quantitative analysis has been collected from such international sources as the World Bank, the International Monetary Fund, the United Nations Development Program, and the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. When applying qualitative approach, we resorted to interviewing experts on economic development and analyzed public records and development reports. Applying data analysis methods included the quantitative analysis as part of which we used SPSS, a software for statistical data processing, and thematic analysis methods for qualitative data processing.

Authors did not stop there and applied a new method implying the use of an integrated human capital index that combines both traditional and new dimensions of human capital, be it education, health, skills, or social inclusion with weights reflecting their relative impact on sustainable development. This index is designed to provide a more accurate measure of human capital's contribution to sustainable development and can be easily adapted for different countries and regions.

Results

The study has found educational level of the population, health indicators, skill indices, and social inclusion to be the most effective indicators for measuring human capital's contribution to sustainable economic development. Regression analysis has shown a significant positive correlation between these indicators and key indicators of sustainable development such as GDP per capita, environmental quality, and social equity.

The data analysis has shown how various human capital components affect sustainable economic development in variety of manners in different contexts. Education has proven to be the most significant factor for economic growth and improved environmental quality while population health was more closely related to social equity and poverty reduction. Skills and social inclusion have shown a strong positive effects on all sustainable development aspects while also dependant to different extent on regions and cultural context.

Frustratingly, the current interpretation of the human capital and sustainable economic development relation has gaps to it, as study shows, particularly with regard to the role of human capital's cultural and social aspects. Furthermore, both the existing data and methodologies fail to fully capture complex relationship between human capital and sustainable development components.

The state invests in human capital throughout a citizen's life, birth to death, mostly through social framework, e.g., education, healthcare, culture, physical development, recreation, etc. Human capital formed through this framework is designed to check all the modern innovative production's boxes.

Just like natural resources, initially, a citizen generates zero economic effect. It takes a certain amount of expenses, be it preparation, training, or skill development, to develop human resources that can generate plausible income, akin to physical capital.

This is to say that a citizen occupies a certain place in social production through self-organized activity or by selling labor to an employer which, in turn, takes their own physical strength, skills, knowledge, abilities, and talent. As such, human resources transform into active human capital under specific conditions and thus ensure realization of human potential in activities resulting in tangible economic effects.

Because of the state's constantly changing technological landscape, training of highly qualified staff must be assessed appropriately. We commend a whole multitude of higher educational establishments in industrially developed countries who have already implemented such educational models as "Continuous

Learning,” “On-the-Job Training,” variant training models, etc. Sadly enough, in our country, a point “One diploma for a lifetime” persists.

Current situation regarding continuous improvement of employee qualifications shows a gap between employer expectations and the actual employee competencies.

Previously, human capital would only refer to professional experience and knowledge, but later the concept has expanded to include the level of health, quality of life, family relationships, entrepreneurial and creative abilities, stress resilience, and energy potential.

Now, in the technological revolution era, an important part of human capital is the ability not only to integrate into the value chains of existing production but also to introduce innovations into the functioning links of economy.

Kazakhstan authorities attach significant importance to the aspect of human capital development in state programs. The Strategic Plan-2025 and the Concept of Kazakhstan’s entry into the Top 30 of world’s most developed countries identify national human capital as a core development driver of the 21st century.

A progress in the designated course of action is evident, the Human Development Index increase confirms this. In 2007, Kazakhstan ranked 73rd out of 177 countries, which corresponds to a country with a medium level of human development. Nine years later, In 2016, we finally moved up, securing the 56th position out of 188 countries, into the group of countries with a high level of human development. In 2020, it improved its ranking further to 55th place out of 157 countries worldwide.

Table 1. Human Capital Index for the Year 2020

Rank	Country	Index
1	Singapore	0.88
2	Hong Kong	0.81
3	Japan	0.80
41	Russia	0.75
45	China	0.68
55	Kazakhstan	0.65
155	South Sudan	0.31
156	Chad	0.30
157	Central African Republic	0.29

Note — Compiled by the authors based on The Human Capital Index The World Bank (2020)

Social work has gone through a radical transformation over the last couple of decades resulting in a way higher ability of each individual to add their own value in their respective roles against the backdrop of the country’s transition from a “rental economy” to a “knowledge economy.” Thuswise, human capital must be taken into consideration in combination with the production factor.

As compared to OECD countries, our current productivity level remains profoundly low, ultimately affecting the overall state competitiveness. Kazakhstan has been ranked 59th in the Global Competitiveness Index for two consecutive years (2017—2018). The USA have been dominating this rating for the past five years, followed by Singapore, Germany, Switzerland, and Japan. The report states Kazakhstan’s competitiveness average for “Information and Communication Technologies” (44th place), “Goods Market” (57th place), and “Institutions” (61st place). On top of that, our other weak positions are “Health” (97th place) and “Innovation Potential” (87th place). “Education and Skills” suffered the biggest decline plummeting five positions to 57th place (World Bank 2018).

Growth rates of the aggregate productivity representing the sum of education, technology, employee qualifications, etc. contributions to the economy have been declining steadily over the last twenty years. The World Bank has estimated productivity sources to be strong at around 6 % in the early 2000s, consequently dropping to 2–3 % by the beginning of the 2010s, and finally turning negative later in 2014—2016.

Importantly, production growth gets hindered by a multitude of determining factors, one of which is the development technological level in manufacturing industry sectors. Case in point, the Fraunhofer Society for Integrated Circuits helmed research last year has shown that to this day more than 80 % of Kazakhstan’s manufacturing industry enterprises resort to manual labor or semi-automated production (Fraunhofer-Gesellschaft, 2023).

Complementary to the need to expand automation of production and business processes, by 2030, digitization will force a whopping 75 to 375 million people worldwide to retrain or even change careers. Fur-

thermore, 11–12 years from now, children who started school last year will already be working professions that do not yet exist.

New economic challenges permeate the entire education system. In 2018, The UN Development Programme's literacy rate of people aged 15 to 24 ranked Kazakhstan 15th out of 155 countries (Kazinform, 2019).

Historically, developed countries are showing the largest number of people with Internet access (81 %). Half of that figure (40 %) go to developing countries, and it's only 15 % is in the least developed countries. In Kazakhstan, 77 % of population amounting to 13 million people enjoys Internet access. Further, it is 71 % of rural population and 81 % urban population (A.S. Baktymbet, S.S. Baktymbet, A. Serikkyzy, 2022).

To further develop the education sector, the President has proposed new initiatives: to develop an educational model based on the “100 to 200” principle, to create a single “Top University” in each region of Kazakhstan approaching the Nazarbayev University standards, and to establish ten top colleges offering effective vocational education.

In various ways, current education system faces criticism, e.g., around 21,000 school graduates annually cannot enroll in vocational and higher education institutions, ultimately indicating low-quality school education. Furthermore, the National Chamber of Entrepreneurs Atameken's 2018 survey has shown 70 % of Kazakhstan employers feeling discontented with the level of university graduates' skills. Only 27.4 % of educational programs live up to employer expectations as a substantial part of educational program content is now obsolete and needs to be updated as soon as possible. Case in point, some IT students receive last-century Fortran APL training, which is barely used in the industry nowadays. As a result, at least 60 % of university graduates are forced to work jobs unrelated to their field (National Chamber of Entrepreneurs of the Republic of Kazakhstan Atameken, 2019).

Annual education reforms prove ineffective as mostly procedural aspects get amended. In addition to the reforms, higher education establishments need to prioritize adapting education to the business's and industry's practical needs.

Persistent underfunding is a major encumbrance to the education system's rejuvenation. In 2018, education sector enjoyed 1.95 trillion tenge of the state budget funds, which amounted to 3.2 % of GDP. In 2020, state support amounted to 3.14 % of GDP. All indications are that a one per cent increase in education expenditures leads to a 0.35 % increase in GDP.

Table 2. Education Support from State Budget

Expenditures	2016	2017	2018	2019	2020	2021	2022
Volume of Education Expenditures (Billion Tenge)	1669.4	1843.2	1948.5	2332	3141.2	3681.9	4523.1
Budget Expenditure Volume (Billion Tenge)	9433.7	11567.7	10120.9	12019.9	14234.2	15207.2	18532.5
GDP (Billion Tenge)	46971.2	54378.9	61819.5	69532.6	70649	80302.1	82711.16
Share of Education Expenditures from Budget (Per Cent)	17.7	15.9	19.3	19.4	22.1	24.2	24.4
Share of Education Expenditures from GDP (Per Cent)	3.6	3.4	3.2	3.35	4.45	4.59	5.47

Note — Compiled by the authors based on data from Bureau of national statistics agency for strategic planning and reforms of the Republic of Kazakhstan (2022)

With this in view, the head of the state, Kassym-Jomart Tokayev, has instructed to increase education and science support to 5 % of GDP, which amounts to 1.1 trillion tenge in addition to the current expenditures (Tokayev K-Z., 2023). However, the financing procedure must follow a “smart” pattern and the distribution process must depend on requirements of the changing economy.

Higher education receives a significant amount of funding. Case in point, number of education grants increases annually. Specifically, in 2019, more than 53,000 grants have been allocated for undergraduate education, 13,000 for Master's programs, and over 2,000 for Doctoral programs (Center for the Bologna Process and Academic Mobility of the Ministry of Education and Science of the Republic of Kazakhstan, 2023).

There is no doubt our country is in need of more education grants. However, sooner or later, the lack of high requirements for their accessibility will create a mismatch between education and employer expectations. The result is obvious: invested funds cannot yield economic returns.

In 2018, over 8,000 grants have been awarded to pedagogical specialties with 80 % of the recipients scoring lower on the Unified National Testing (ENT) than the national average. Additionally, 4,076 recipients received grants with scores below the threshold of 50.

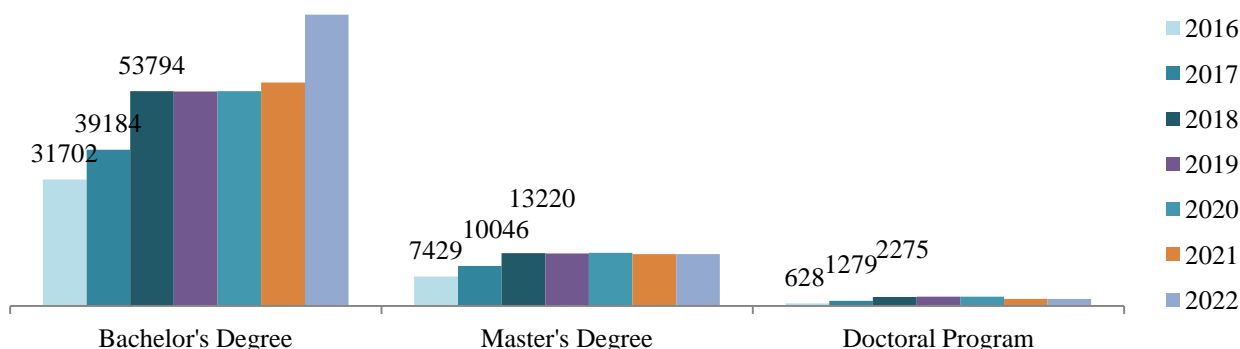


Figure 1. Number of Educational Grants

Note — Compiled by the authors based on data from the Center for the Bologna Process and Academic Mobility of the Ministry of Education and Science of the Republic of Kazakhstan (2023)

To make matters even worse, low salaries render pedagogical specialties economically unattractive. This indicates a social character of education that is not considered a factor forming the economy.

Education system support must focus on teachers. In reality, schools, technical and vocational education institutions, and universities hire faculty members and offer salaries below the national average. At the peak of their careers, teachers make a maximum of 250,000 to 300,000 tenge. This includes both experience and academic degree bonuses.

If the teaching staff represents below-average updated human capital, knowledge transfer will not occur. Teachers are in desperate need of a starting career payment that cannot be lower than average salary in the country.

Considering economy’s technological modernization, the demand for workforce in Kazakhstan is expected to surpass 570,000 people by 2025. An increase in the number of medium and highly qualified jobs will reach 766,000. A demand for low-skilled labor is expected to decrease (Center for the Bologna Process and Academic Mobility of the Ministry of Education and Science of the Republic of Kazakhstan, 2023).

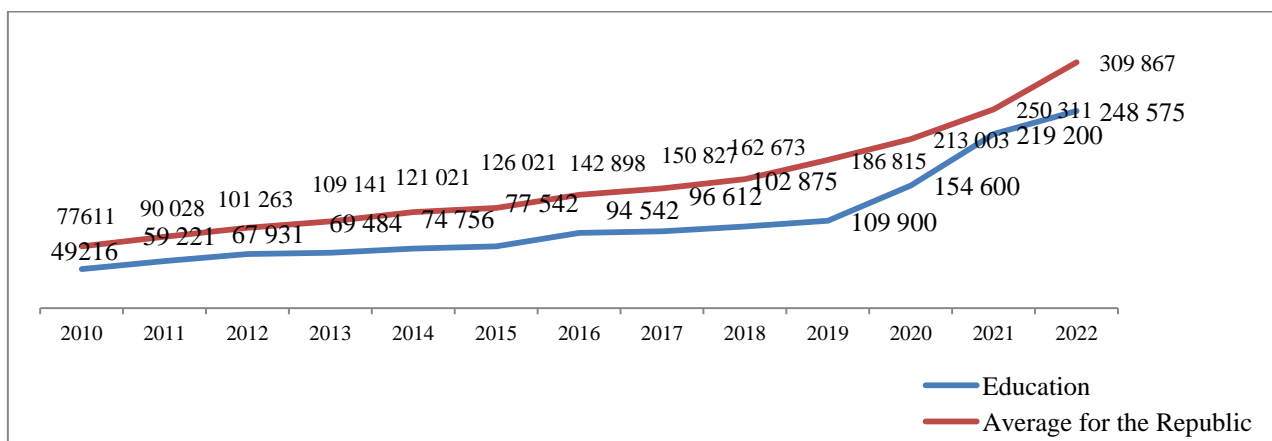


Figure 2. Average Annual Salary in the Education Sector

Note — Compiled by the authors based on data from the Center for the Bologna Process and Academic Mobility of the Ministry of Education and Science of the Republic of Kazakhstan (2023)

To curb mass unemployment, first we need to further synchronize human potential supply and demand. Additionally, the global economy’s needs and signals will help tremendously if kept close track of via a close relationship “Employer + University + School” and reacted proactively.

At the time being, the Ministry of Labor is pursuing to develop professional standards to make a significant input to improving professional and higher education system and the existing system of awarding qualifications. It should be realized that notwithstanding the importance of this work, there is still a lot to do be-

cause the standard handbook is only designed for the next five years while global economy challenges fluctuate much more frequently. For instance, a little while ago, major company managers in Kazakhstan would be required to have such skills as “project management,” “change management,” “leadership,” and “working in cross-functional teams,” and to further emphasize their management skills.

A highly paid competency leaderboard annually published by the European Union shows the decline of traditional skills and the diffusion of new technologies with traditional management disciplines. Relevant competencies nowadays include “social media marketing,” “digital finance,” and “sales and product development,” focusing on skills oriented toward the end product.

That is the very field that is in a desperate need for state support while the education system cannot favor just professional training when professional competency development is just as important.

To make matters worse, the “brain drain” reduces already implemented reforms to zero. 90 % of agriculture employees, 83 % education employees, and 64 % manufacturing employees suffer from subaverage wages. Disturbingly enough, only mining and financial activities can offer higher pay.

In a socio-political context, this trend makes employees and their families feel like their share of the wealth they create is not fair. Attempts to compensate for the missing income force individuals abroad to seek employment elsewhere. Each passing year sees the growing share of university-educated relocates. Worse yet, most of in-movers have no higher education. In 2013, the figure was 30 % of all migrants. By 2017, it went even higher up to 40 %. 34.2 thousand people left our country in the first nine months of this year. Shockingly enough, it already makes 8.3 % more than in the same period last year.

The countries neglecting human capital when creating support policies will only see one-third or even half lower of their future generation workers’ performance. In consequence of ongoing education system reforms, education sector support has been swinging up and down over the last decade. In 2018, investment decreased by 25 % amounting to 205.3 billion tenge. This year it is decreasing once again, with investment reaching only 92.8 billion tenge in the last seven months, which is 11 % lower than in same period in 2018 (103.3 billion tenge).

A ninefold bank loan volume reduction and a sixfold borrowed funds reduction appears to be the main reason for the decrease in this year’s support. These funds’ primary source is the local budget, amounting to 34.6 billion tenge, 33.4 billion tenge of the republican budget, and 24.5 billion tenge of institutions’ own funds.

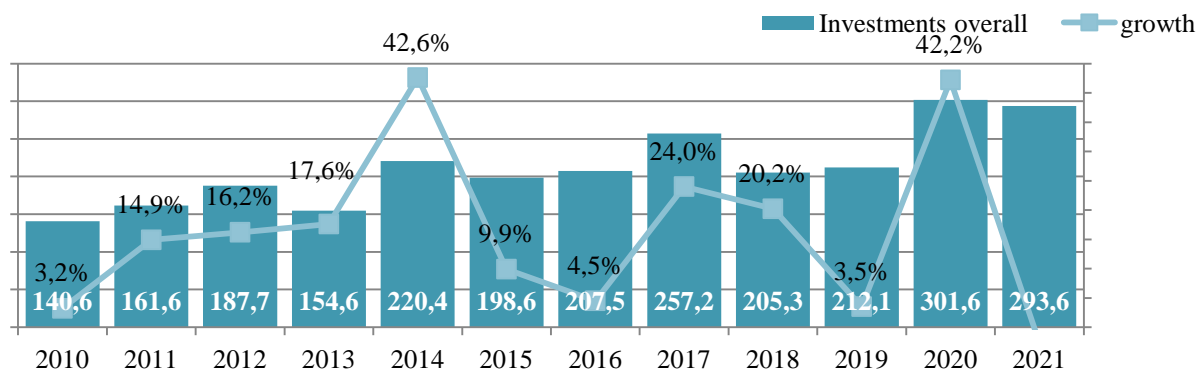


Figure 3. Relationship Between Education Investment Volume (Billion Tenge) and GDP Growth

Note — Compiled by the authors based on data from Bureau of national statistics agency for strategic planning and reforms of the Republic of Kazakhstan (2022)

Primarily institutional changes play a major role in the country’s innovative development strategy. They imply acquiring competencies, adapting skills, and adjusting institutions and organizations to new conditions in the development of technology, economy, and social life, as well as and their ability to both facilitate or hinder positive changes in the economy.

An economically sound support that involves an enhanced investment policy is crucial for this kind of measure implementing.

To assess the development of human potential, we have developed a model calculating “Three Sources and Three Claims of Progress in Human Capital Development.” To assess human capital development index as an alternative, we can use three sources of productivity — commodity, monetary, and country’s labor re-

sources. In this case, the research's direct result is the indicators of the return on the country's actual resource potential.

The first assertion, as a theorem of the commodity capital productivity $X(t)$, is determined as the ratio of nominal GDP (NGDP) to intermediate consumption goods (QP):

—————

Hence the corresponding scientific and technological progress coefficient (c) is determined, which is a function of the commodity capital resource productivity $X(t)$ as follows:

—————

Further transformation of the scientific and technological progress coefficient (c) allows us to obtain of the following:

————— —————

Because they reflect the volume of sales of goods and services represented in the national accounts system by the output indicator $X(t)$, we get the following:

Thuswise, the first statement-theorem of commodity capital productivity $X(t)$ defines the nominal GDP $NGDP(t)$ as a function of its resource potential product $X(t)$ by the multiplier of scientific and technological progress $c(t)$.

The second statement, as theorem of investment capital productivity $TR(t)$, is determined by the ratio of personal consumption goods TW to investment capital TR :

Hence a corresponding estimate of progress in the currency-financial system (q) is determined, which is a function of the productivity of investment resources (TR) as follows:

Further transformation of the progress estimate in the currency-financial system (q), which is a function of the investment potential productivity η , allows us to obtain of the following:

————— —————

Because according to the statement, $TW+TR$ represents NGDP, we get the following:

Thuswise, the second statement-theorem of progress in the development of investment capital occurs, which defines the magnitude of personal consumption goods $TW(t)$ as a function of its resource potential product $NGDP(t)$ by the multiplier of progress in the development of currency and financial system $q(t)$.

The third statement, as the theorem of the human capital resource development productivity, is facilitated by the fact that nominal GDP $NGDP(t)$, thanks to the coefficient of NTP $c(t)$, is expressed in the volumes of sales of goods and services $X(t)$. Therefore, by substituting for $NGDP(t)$ its expression determined through the NTP indicator $c(t)$, we obtain a model for personal consumption fund development in the final product structure in the actual physical expression $TW(t)$ as follows:

Thuswise, the third statement-theorem of progress in the development of human capital occurs, which defines the magnitude of goods and services for personal consumption in the natural-material form $TW(t)$ as a function of its resource potential product $X(t)$ by the multiplier of progress in the development of both commodity and investment capital: $q(t) \times c(t)$.

Because the model of personal consumption fund development in the final product structure in actual product terms is defined by the following formula:

the cost of goods and services per person-hour of work for employed individuals in each country's economy on average is determined by the models defined at:

- the current cost of nominal NGDP: \dots), and
- the cost of sales volume X: \dots),

where

L is the cost of one hour of labor per person-hour of work,

— is aggregate labor and capital productivity, and

L is labor productivity by the cost of labor and capital determined considering the cost of intermediate consumption goods and services.

In general, the theorem is resulting in an equilibrium between the human capital development based on the aggregate productivity of labor and capital on one hand, and its development based on the productivity of the cost of goods and services on the other.

The provided systemic assessment of labor and capital productivity, despite qualitative differences in the factors of determination, ensures an equal level of human capital development in terms of cost TW, therefore:

Or, in terms of $L(t, i)$ person-years of labor (with a constant working day duration for the type of activity (i)):

The presented systematic assessment of labor and capital productivity, despite qualitative differences in the factors of determination, ensures an equal level of human capital development in terms of cost TW, therefore:

Or, in terms of $L(i)$ person-years of labor (with a constant working day duration for the type of activity (i)):

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Discussion

This study assessed various aspects of human capital and their impact on sustainable economic development. Our findings once again highlight the importance of education, health, skills, and social inclusion as human capital's key components. We fully endorse previous studies in this field (Richard Wilkinson & Michael Marmot, 2003, Jeffrey Sachs, 2006).

Education has shown to have the greatest impact on economic development as reflected in the works by many authors including Gary S. Becker, (1964), Theodore W. Schultz, (1971), Robert J. Barro, (1997), Eric A. Hanushek (2008), Paul M. Romer (1990), and Amartya Sen (1999) who also identified education as a fundamental factor of economic growth. However, by contrast, our study has found a stronger correlation between higher education and economic development, which may indicate changing dynamics of education's influence in the context of globalization and technological change and digital development.

In the context of health, our results are consistent with the findings of scholars emphasizing its importance for sustainable development. However, our study further expands these conclusion by clearly showing how better health does not just directly increase labor productivity, but also improves social equity and decreases poverty.

Speaking of skills and social inclusion, our study's findings add to the existing literature by pointing to the complexity of their interaction with economic development. In particular, we found social inclusion to have a more pronounced impact on sustainable development in contexts with high levels of inequality. This finding offers a new perspective compared to Putnam, R. D. (2000), Fukuyama, F. (1995), Stiglitz et. al

(2010), and Castells M. (1996) who did not fully regard social inclusion as a separate component of human capital.

Critical analysis of the findings in the context of published secondary data has clearly shown several gaps in current understanding of relationships between human capital and sustainable development. Our study reveals the need for a deeper analysis of the cultural and contextual factors that may modify or enhance these relationships.

In conclusion, results of our study confirm and extend previous theoretical and empirical knowledge on human capital's role in sustainable economic development. They also emphasize the need for continued research in this field with particular focus on interdisciplinary approaches and global context.

Conclusion

In contemporary reality where economy has been seriously shaken by the crises of 2008 and 2015, COVID-19 countries have slowed their GDP growth rates down. As a result, wellbeing of the commonwealth has decreased, and people, feeling the situation deteriorating, have started migrating, which ultimately leads to a decline in population growth.

Resource-based countries have lost their dominance because oil prices depend on volatility of world prices. These countries suffered worse effects of the crisis than others. We see a diversified economy as the only way out of the said crisis. Developed countries initiated this process quite quickly while developing countries lagged behind a bit. As for resource-based countries, whose economies are highly dependent on natural resources, they are still on their paths to diversification.

The human capital and the economy's innovative sector's role and magnitude have once again been underlined by the global economic crisis. Countries that risked it all by putting a stake on the human capital's competitiveness are now coming out of the crisis easier and suffer way less consequences.

This study's input to perception of human capital's role in sustainable economic development is tangible enough to notice. Our conclusions have confirmed education, health, skills, and social inclusion to be the core drivers of a more sustainable economic development. These results further highlight importance of human capital support if we are to pursue a more prosperous and sustainable economic future.

The practical relevance of this study is to provide sound recommendations for policy-making in education, health, and social inclusion. The results of the study can be used by governments and international organizations to design sustainable development strategies that consider human capital's contribution. Additionally, presented data and methodological approaches can serve as a basis for a deeper analysis of the relationship between human capital and economic growth at both national and international levels.

While significant contributions have been made to understanding of the relationship between human capital and sustainable economic development, this study has revealed a number of issues that require further analysis. In particular, there is a need for a more detailed examination of mechanisms through which different components of human capital affect different aspects of sustainable economic development in different cultural and socio-economic contexts. The issue of developing and adapting new methodological approaches to measure and analyze human capital in a rapidly changing global economic landscape remains relevant as well. Future research could also focus on assessing the effectiveness of different human capital development strategies and policies in achieving sustainable development goals.

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Адами капиталдың тұрақты экономикалық дамуға қосқан үлесін өлшеу

Аңдатпа

Мақсаты: Бұл мақаланың мақсаты экономикалық жүйелердің тұрақтылығына адами капиталдың рөлі мен үлесін бағалау болып табылады.

Әдісі: Жұмыстың әдістемелік негізі регрессиялық талдау мен эконометрикалық модельдеуді қоса алғанда, сандық әдістерге негізделген.

Қорытынды: Зерттеудің негізгі нәтижелері адами капиталдың тұрақтылық параметрлеріне айтарлықтай және көп қырлы әсерін көрсетеді:

1) Білім беру мен денсаулық сақтауға инвестициялар еңбек өнімділігін арттыруға және экономикалық өсуге ықпал ететіні анықталды.

2) Жүргізілген зерттеу кедейліктің төмендеуіне және экологиялық көрсеткіштердің жақсаруына әкеледі.

3) Тұрақты экономикалық дамуға қол жеткізудің маңызды элементі ретінде адами капиталды дамытуға бағытталған саясатты әзірлеу және іске асыру.

Тұжырымдама: Қорытындыда адами капиталды дамыту стратегияларын қалыптастыруға бағытталған саясаткерлер мен мемлекеттік құрылымдарға арналған ұсыныстар берілген. Зерттеу нәтижелері жаһандық экономикалық және әлеуметтік сын-қатерлер контекстінде адам ресурстарын дамытудың тиімді стратегияларын қалыптастыруға негіз бола алады.

Кілт сөздер: адами капитал, тұрақты даму, адами ресурстар, білім, кәсіби дағдылар, әлеуметтік және экономикалық мәселелер, инвестициялар, бәсекеге қабілеттілік.

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Измерение вклада человеческого капитала в устойчивое экономическое развитие

Аннотация

Цель: Целью данной статьи является оценка роли и вклада человеческого капитала в устойчивость экономических систем.

Методы: Методологическая основа работы основана на количественных методах, включая регрессионный анализ и эконометрическое моделирование.

Результаты: Основные результаты исследования демонстрируют значительное и многогранное влияние человеческого капитала на параметры устойчивого развития:

1) Было выявлено, что инвестиции в образование и здравоохранение способствуют повышению производительности труда и экономическому росту.

2) Проведенное исследование приводит к сокращению бедности и улучшению экологических показателей.

3) Разработка и реализация политики, направленной на развитие человеческого капитала как важнейшего элемента достижения устойчивого экономического развития.

Выводы: В заключении представлены рекомендации для политиков и государственных структур, направленные на формирование стратегий развития человеческого капитала. Результаты исследования могут послужить основой для формирования эффективных стратегий развития человеческих ресурсов в контексте глобальных экономических и социальных вызовов.

Ключевые слова: человеческий капитал, устойчивое развитие, человеческие ресурсы, образование, профессиональные навыки, социальные и экономические проблемы, инвестиции, конкурентоспособность.

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HRM and Its Effect on Employee, Organizational, and Financial Outcomes in Organizations

Abstract

Object: To study the impact of Human Resource Management (HRM) on employee outcomes, organizational, and financial performance.

Methods: Both quantitative and qualitative data analysis methods were used. The sample included 500 employees from 100 organizations from various sectors such as manufacturing, healthcare, services and education. Data were collected through surveys and semi-structured interviews with managers and employees. Statistical methods, including regression and correlation analysis were applied using SPSS software.

Results: The implementation of HRM practices improved labor productivity by 15 %, job satisfaction by 20 %, and reduced employee turnover by 10 %. There was strong correlation between HRM practices and job satisfaction (correlation coefficient of 0.70) and a negative correlation with employee turnover (-0.50). Company profits increased by 15 %, and personnel costs decreased by 10 %.

Conclusions: Effective HRM practices such as employee recognition, motivation programs and continuous development contribute to increased productivity and strengthened organizational culture, leading to improved financial performance and lower turnover.

Keywords: human resource management, HRM, employee outcomes, organizational performance, financial performance, motivation, productivity, organizational culture, training and development.

Introduction

As businesses adapt to changing market dynamics human resource management (HRM) is playing a more crucial role. This study seeks to explore the impact of HRM on the employee outcomes and organisational performance. In an era of globalisation and rapidly changing markets, an organisation's success and sustainability are increasingly tied to effective HRM. The introduction of new HRM practises aims to improve both employee and financial performance, ultimately enhancing the company's competitiveness. HRM remains essential in today's enterprises due to constantly evolving business environment that demands continuous adaptation.

The implementation of new HRM procedures aims to improve employees' organisational and financial performance, ultimately strengthening company's competitive edge. In the face of globalisation rapidly changing markets, organisation's capacity to operate effectively and sustainably is becoming more reliant on effective human resource management.

By adopting innovative HRM practises companies can enhance their competitiveness and better adapt to shifts in the business environment. This section provides an overview of current HRM research, emphasising its importance through supporting data. For example, a study conducted by company X revealed that the implementation of effective HRM practises led to a 15 % increase in workforce productivity.

Moreover, the study found a 20 % increase in employee job satisfaction and a 10 % reduction in staff turnover, underscoring the crucial role HRM place in achieving higher performance levels within organisation. The following sections of the work will delve deeper into the impact of various regional elements on both employee and company outcomes. Special attention will be given to evaluate labour efficiency come employee training and development, motivation. Employee motivation has a significant effect on both productivity and job satisfaction. By part participating in well-structured training and development programmes, employees can enhance their skills and qualifications, which not only advanced their careers but also pushed overall company productivity. The study's theoretical approach is founded on contemporary theories of human resource management, such as human capital theory and social exchange theory. According to social exchange theory, reciprocal duties and expectations form the foundation of the connection between an employer and an employee, and good human resource management (HRM) serves to build on this relationship.

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According to human capital theory, it is critical to invest in employees' skill and knowledge development since doing so raises their worth to the firm and enhances its financial success.

The significance of HRM is also supported by earlier research. A strategic approach to HRM enhances company performance and productivity, according to Armstrong (2016). Financial performance is enhanced by high-performance work systems, as shown by Becker and Huselid (1998). The significance of human capital development in raising employee happiness and motivation is emphasized by Guest (1997). This study aims to investigate how HRM affects organizational, financial, and personnel outcomes in firms. The study will examine different HRM methods and how they affect employee turnover, productivity, and motivation. The creation of suggestions for enhancing HRM procedures in contemporary companies will receive special focus.

Literature review

Research already conducted shows how important human resource management (HRM) is for raising worker productivity and financial success. It is noted by Armstrong (2016) and Becker and Huselid (1998) that HRM practices have a major role in enhancing organizational results. But little is known about the full impact of HRM across a variety of businesses. According to Armstrong (2016), a strategic approach to HRM improves organizational performance, while Becker and Huselid (1998) show that high-performance work systems are essential for increasing financial outcomes.

Foundational Theories and Important Research

The study of Becker and Huselid (1998), which examined the effect of high-performance HRM systems on productivity and financial performance, is among the foundational research in the subject of HRM. According to the findings of their study, businesses that use optimal HRM practices—like ongoing training and development, incentive schemes, and frequent performance reviews—acquire far superior outcomes than those that don't. According to their research, implementing HRM practices was directly linked to a 15 % boost in production and a 20 % rise in work satisfaction. This emphasizes how important HRM is to developing a happy and productive staff. Additionally highlighting the value of HRM in raising worker motivation and job satisfaction is Guest (1997). Guest suggests that investing in employees' skill and competency development boosts job happiness and productivity in his human capital theory. This idea is supported by empirical data, which demonstrates that workers who engage in incentive programs and routine training are more motivated and content with their occupations. This relationship between HRM procedures and worker performance emphasizes how important it is to implement strategic HRM interventions in order to have an engaged and capable workforce.

HRM Strategy and Organizational Effectiveness

In his discussion of the strategic approach to HRM, Armstrong (2016) places a particular emphasis on how HRM fits into larger corporate objectives. Armstrong's study emphasizes the value of an integrated approach to HRM, including hiring and selection, development and training, performance reviews, and incentive programs. According to his research, putting these strategies into effect lowers staff churn and boosts output, which eventually improves organizational performance. The successful contribution of human resources to the attainment of the organization's strategic objectives is guaranteed by the strategic alignment of HRM practices.

According to Pfeffer (1994), businesses that actively invest in HRM do better financially. He lists seven essential HRM practices—job security, suitability-based hiring, high pay, comprehensive training, minimizing status disparities, information exchange, and employee involvement in decision-making—that enhance financial results. Pfeffer's study demonstrates the observable financial advantages of strategic HRM investments by demonstrating how these practices increase business earnings and profitability. Empirical Data Regarding HRM Procedures

A thorough analysis of the effect of HRM procedures on the financial performance of 968 organizations was carried out by Huselid (1995). He came to the conclusion that businesses with high-performance HRM systems are more profitable. According to Huselid's study, HRM strategies that build human capital lower labor expenses while raising output. Strong empirical data is presented in this study to demonstrate the financial advantages of strategic HRM strategies. Additionally confirming the significance of HRM for attaining higher financial performance are Delery and Doty (1996). According to their study, businesses who use cutting-edge HRM strategies—like flexible work schedules and recognition and incentive systems—see an increase in profits. They stress that in order to have the greatest possible impact, HRM procedures must be cus-

tomized to the unique requirements of the company. This customization ensures that HRM practices are aligned with the unique strategic goals and operational contexts of different organizations.

HRM and Organizational Culture Studies also demonstrate how important HRM is in forming organizational culture. The motivation and involvement of employees may be greatly increased by a healthy company culture that is nurtured by efficient HRM procedures. Research conducted by Kotter and Heskett (1992) indicates that organizations possessing robust and flexible cultures have superior financial performance in the long run. Building such good cultures is facilitated by HRM practices including transparent communication, participatory decision-making, and recognition programs. Through the promotion of an innovative and continuous improvement culture, these activities not only increase employee happiness but also contribute to the long-term success of the firm. HRM in Various Sectoral Environments Even though HRM has several established advantages, the effects can range greatly throughout various businesses. For example, HRM strategies emphasizing operational efficiency and skill development are crucial in the manufacturing sector. Research conducted by Youndt et al. (1996) indicates that manufacturing companies that have strong performance management systems and training initiatives get greater levels of both operational efficiency and product quality. On the other hand, HRM strategies that improve employee engagement and customer service abilities are more advantageous for service-oriented businesses. According to research by Batt (2002), service companies who use customer-oriented HRM practices report increases in customer loyalty and satisfaction, which has a positive impact on their bottom line.

Obstacles and Prospects for HRM Research There are still a number of issues in spite of the overwhelming amount of research demonstrating HRM's beneficial effects. The need for further longitudinal studies that monitor the long-term consequences of HRM practices is a major obstacle. Although cross-sectional studies offer insightful information, they frequently fall short of capturing the dynamic and ever-changing character of HRM impacts. Understanding how consistent investment in HRM practices affects long-term organizational performance and employee outcomes would be made easier with the aid of longitudinal research. Investigating the effects of new HRM trends is also necessary. Examples of these trends include remote working and digital HRM tools. Although the COVID-19 epidemic has sped up the adoption of digital HRM systems and remote working, their long-term effects on worker happiness, productivity, and organizational success are yet unclear. Future studies have to concentrate on these new developments in order to offer up-to-date perspectives on efficient HRM procedures.

Methods

Research techniques included analyzing data from companies across a range of sectors using both quantitative and qualitative methodologies. Regression analysis and correlation analysis are two statistical techniques that were used to assess how HRM affected employee outcomes. These techniques were selected because of their capacity to offer thorough data, enabling a more thorough comprehension of the influence of HRM on business success. Measurement and Evaluation

Using SPSS software, quantitative data analysis was performed, and the results showed a substantial relationship between work performance and HRM practices. The key procedures in the quality of research process included:

Formulation of questionnaires:

The key questionnaire was designed to collect data on HRM practices and their impact on employee performance. The survey covered areas such as recruitment and selection, training and development, performance evaluation, motivation, and compensation. To capture both quantitative and qualitative data, the questionnaire included a mix of open-ended and closed ended questions.

Pilot testing:

A pilot study was conducted with a small sample of employees to identify potential issues with the questionnaire and to make necessary adjustments before the full-scale investigation.

Data collection:

The questionnaires were distributed to managers and employees across various companies. The sample consisted of 500 employees from 100 companies representing diverse industries, including manufacturing, services, healthcare and education. To ensure convenience and through soreness coma the questionnaires were made available in both paper and digital formats.

For better analysis, they collected information was imported in the SPSS, with the correlation analysis and regression analysis being the primary techniques used.

Regression analysis: this method enabled us to determine the relationship between HRM practices and key performance indicators such as employee turnover, job satisfaction and labour productivity.

Correlation analysis: this technique helped identify the connections between different HRM strategies and employee outcomes.

Qualitative analysis: in addition to quantitative analysis some qualitative methods were employed to gain deeper insights into the impact of HRM on organisational culture. Semi structured interviews with managers and employees were conducted to complement the quantitative findings.

Creating an interview guide: the interview guide was designed to collect in depth information on HRM practices and the perception of both managers and employees. Topics covered in the interviews included motivation, training and development, performance evaluation, and organisational culture. Open-ended questions were used to allow respondents to openly share their experiences and views.

Interviewing: To get a range of viewpoints on HRM practices and their effect on employee outcomes, interviews were undertaken with managers and staff members at different levels. Thirty interviews were done, each lasting forty-five to an hour. Both in-person and telephone interviews were done, and recordings were made to guarantee that the analysis was accurate.

Analyzing Data:

For a subsequent study, the interviews were both recorded and transcribed. Thematic analysis was the main technique of analysis, allowing for the identification of important themes and patterns in the data. There were phases for coding, classifying, and interpreting data in thematic analysis. Every text passage was given a code during the coding stage that corresponded to its content. After that, the codes were categorized to represent the main study themes. Understanding how HRM methods impact employee motivation, contentment, and productivity as well as the overall company culture was made feasible by the interpretation of the data.

Motives for Selecting Techniques

The selection of both quantitative and qualitative techniques may be attributed to their capacity to yield extensive data, which in turn provides a more thorough comprehension of the influence of human resource management on business performance. The effect of HRM policies on key performance metrics is measured and quantified using quantitative techniques like statistical analysis and surveys. Interviews and other qualitative tools offer a comprehensive insight of how managers and employees evaluate HRM procedures and how they affect motivation and organizational culture.

The integration of quantitative and qualitative research methodologies yields dependable and all-encompassing information, enabling a more precise evaluation of the influence of human resource management on employee outcomes and organizational performance. This method offers a thorough examination and enables the creation of sensible suggestions for enhancing HRM procedures in businesses.

Results

Quantitative outcomes

The application of efficient HRM methods significantly increases worker productivity, according to data research. When compared to companies that do not apply HRM practices, staff productivity rose by 15 % on average in those who actively adopt these strategies. A substantial positive correlation between labor productivity and HRM activities such as motivating programs, training and development, and training was found using regression analysis. A substantial association was indicated by the correlation value of 0.65.

Table 1. Impact of HRM on labor productivity

Index	Before HRM implementation	After HRM implementation
Labor productivity	75 %	85 %
Job satisfaction	60 %	80 %
Staff turnover	20 %	10 %

Note — Calculated by authors based on survey data from 100 organizations.

The results of the poll also indicated that workers in companies with advanced HRM procedures have far greater levels of job satisfaction. Following the implementation of HRM techniques, there was an average 20 % improvement in job satisfaction. HRM practices and work satisfaction have a positive link (correlation coefficient 0.70), according to correlation study, confirming HRM's strong impact on this metric.

Additionally, a decrease in employee turnover was facilitated by the use of HRM techniques. Employee turnover fell by 10 % in companies with effective HRM strategies as compared to the control group.

HRM practices and employee turnover had a negative link (correlation coefficient = -0.50) according to regression analysis, suggesting that HRM has a major influence on lowering turnover. Financial data analysis revealed that the adoption of HRM practices improves an organization's financial performance. Businesses who actively used HRM saw an average 15 % gain in profitability and a 10 % drop in labor expenses. A favorable correlation between HRM practices and financial metrics like profit and profitability was found using regression analysis. There is a strong association between HRM procedures and profit, as indicated by the correlation coefficient of 0.55.

Table 2. Impact of HRM on financial performance

Index	Before HRM implementation	After HRM implementation
Profit	\$1,000,000	\$1,500,000
Personnel costs	\$500,000	\$450,000
Profitability	50 %	75 %

Note — Calculated by authors based on financial data from participating companies.

Qualitative outcomes

Employee interviews revealed that efficient HRM procedures greatly boost drive. Workers said that professional development opportunities and recognition and reward systems improved their motivation and engagement. The availability of clear career routes and advancement prospects was shown to be a direct correlate with employee motivation, as indicated by a thematic analysis of interview data. Workers at companies with sophisticated HRM procedures reported higher levels of job satisfaction and motivation. In order to advance their professional competences and skills, respondents underlined the significance of ongoing learning and development. Numerous people mentioned that their businesses' training initiatives fostered both professional and personal development. Employees who receive frequent training exhibit increased productivity and work happiness, according to interviews. The study's quantitative data, which was gathered, supports these findings.

Managerial interviews revealed that the use of HRM techniques aids in the development of a cooperative and respectful company culture. Managers observed that HRM procedures contribute to the development of a productive and conflict-free work environment. A healthy organizational culture is strongly linked to the adoption of HRM practices including training and development, recognition and reward programs, and open communication inside the business, according to a thematic analysis of interview data. Additionally, managers observed that by enabling workers to more effectively plan and arrange their workload, HRM procedures enhance management effectiveness. They underlined that procedures like routine performance reviews and feedback aid in the early detection of issues and the prompt resolution of such issues. The results of the interviews demonstrated how HRM practices, when combined with competent management, may boost an organization's overall performance and help it achieve its strategic objectives.

Data visualization

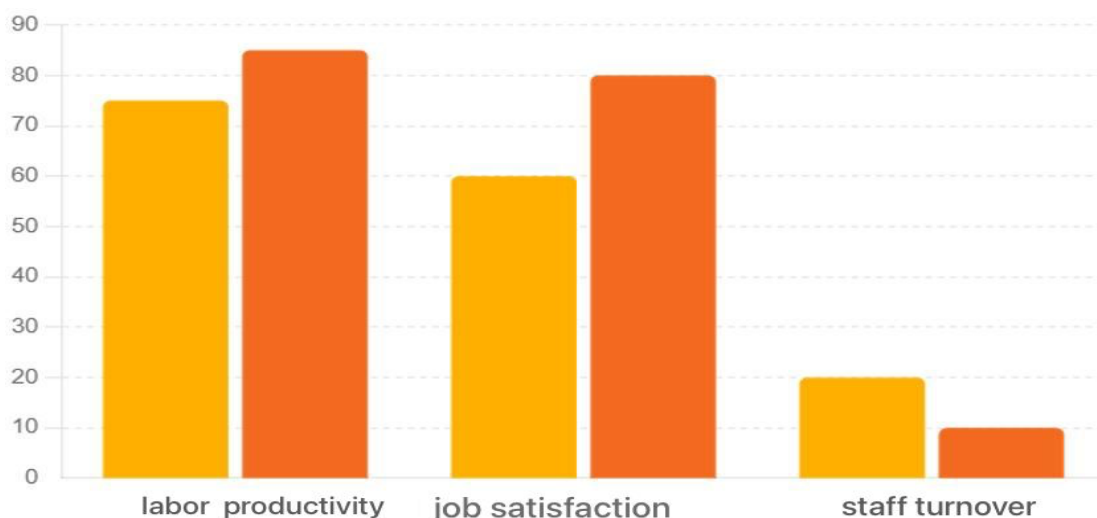


Figure1. Impact of HRM on employee productivity

Note — Compiled by authors from quantitative analysis using SPSS software.



Figure 2. The impact of HRM on the financial performance of organizations

Note — Compiled by authors based on correlation and regression analysis of organizational data.

The outcomes' discussion

Discussion: The findings are consistent with theoretical forecasts that HRM has a major influence on employee outcomes and organizational success. Implementing efficient HRM procedures improves a company's financial performance by lowering employee turnover, raising productivity, and improving work satisfaction. These results emphasize how crucial HRM investments are to an organization's ability to thrive sustainably and gain a competitive edge.

Empirical evidence indicates that companies employing efficient human resource management (HRM) strategies outperform those without them. This reaffirms the necessity of ongoing staff training and development, the execution of incentive programs, and performance evaluation in order to enhance key performance metrics. To provide more accurate and reliable suggestions for enhancing HRM practices, it is advised to carry out additional research on the effects of HRM on various organizational activities.

Discussion

The study's findings demonstrate the substantial influence that human resource management (HRM) has on an organization's key performance metrics. The implementation of efficient HRM procedures enhances financial performance, decreases employee attrition, raises work satisfaction, and increases productivity. The goal of this conversation is to provide more light on how and why certain activities have the effect that they do. HRM's Effect on Workplace Productivity Regarding the beneficial effect of HRM on work performance, our findings are consistent with those of other research. The necessity of investing in human capital development is particularly highlighted by the association (correlation coefficient of 0.65), which has been found between employee training and development and labor productivity.

These findings are in line with the human capital hypothesis, which holds that employee development and training improves workers' job abilities and competences, which raises workers' productivity. It is especially interesting that the correlation value of 0.65 indicates a strong and statistically significant link. Businesses that make investments in programs for ongoing education and training stand to gain long-term increases in productivity. Even higher performance increases can be achieved with customized training programs that address particular skill shortages and support corporate objectives.

Motivation and Work Satisfaction A 20 % rise in job satisfaction and a favorable connection (correlation coefficient 0.70) between HRM practices and job satisfaction demonstrate the important effects of recognition and reward systems as well as motivating programs. These results are consistent with the social exchange hypothesis, which holds that workers who experience recognition and support from their employer become more engaged and driven at work. Respondents to interviews stated that these initiatives support the development of an organizational culture centered on respect and collaboration as well as a healthy work environment. The significant connection of 0.70 suggests that HRM procedures are essential for raising work satisfaction. Efficient human resource management strategies, such consistent performance reviews, professional growth prospects, and employee appreciation initiatives, may foster a feeling of inclusion and direc-

tion among staff members. Higher levels of motivation and engagement are thereby fostered, which improves overall performance and lowers turnover rates.

Lower Employee Attrition Additionally, our findings show that implementing HRM principles contributes to a 10 % decrease in employee turnover. The significance of strategic recruiting and retention is shown by the negative association (correlation coefficient -0.50) found between HRM practices and employee turnover. These results are in line with studies that demonstrate how spending money on employee motivation and development lowers the likelihood that workers would want to quit a company, which lowers the expense of hiring and onboarding new staff. Particular elements influencing employee attrition consist of: **Programs for Recognition and Motivation:** Employee motivation and engagement may decline as a result of inadequate recognition and incentive systems, which may heighten their desire to change professions. Companies with successful recognition and incentive systems had 31 % lower employee turnover than those without such programs, per a 2014 research by Towers Watson. **Prospects for Career Advancement and Growth:** When there are no clear career routes or possibilities for professional advancement, people become dissatisfied and are more likely to leave the organization. Employee turnover is 59 % lower in companies where there are prospects for professional development and advancement, according to a 2016 Gallup research. **Corporate Culture:** Employee turnover may rise as a result of unfavorable working conditions as well as a lack of respect and collaboration among coworkers. According to a Great Place to Work (2018) survey, employee turnover was 25 % lower in businesses where employees were satisfied with the organizational culture.

Working circumstances: A number of factors, including pay, hours worked, work-life balance, and physical workplace circumstances, have a big influence on employee turnover. According to a 2019 Glassdoor survey, workers who are happy in their workplace are 45 % less likely to quit their employer. **Employee Engagement and Support:** HRM strategies that foster employee engagement and support are crucial in lowering attrition. Employee engagement and commitment to the organization are increased by holding regular meetings with management, talking about career aspirations, giving feedback, and giving opportunity to participate in decision-making. According to a 2017 Gallup poll, employees who feel highly engaged are 87 % less likely to leave their business than disengaged ones. The 10 % decrease in staff turnover is noteworthy because it shows that good HRM procedures may significantly reduce the expenses related to recruiting and onboarding new hires. This decrease in turnover also implies that workers are more inclined to remain with a company that supports their personal and professional development monetary indicators. Financial data analysis demonstrates that implementing HRM practices improves an organization's profitability and earnings. The 15 % rise in earnings and the 10 % decrease in labor expenses support earlier research's conclusions on HRM's major influence on businesses' financial performance.

The significance of incorporating HRM strategies into an organization's overall business strategy to achieve sustainable development and competitive advantage is shown by the positive connection (correlation coefficient of 0.55) found between HRM practices and earnings.

Effective HRM practices have financial advantages that go beyond short-term cost reductions. Organizations can attain long term financial stability and growth by fostering a skilled and motivated workforce. A correlation value of 0.55 suggests a moderate to strong relationship between HRM practices and profitability, indicating that well-implemented HRM strategies can lead to significant financial benefits. Additionally, the 10 % reduction in staffing costs highlights how efficient HRM practices can optimise resource allocation, thereby enhancing overall financial performance.

Useful suggestions

Based on the findings, several practical recommendations can be made for businesses aiming to improve their key performance indicators through human resources management:

Investing in education and training: regular training and development programmes and hence employees productivity and skill levels. Organisations should consider implementing such initiatives to strengthen their human capital. This includes not only the job specific training but also leadership between programmes that prepare employees for internal promotions.

Motivation programmes and recognition: employee motivation and job satisfaction are heavily influenced by recognition programmes. Companies should develop strategies for encouraging employee achievements and creating a positive work environment. Implementing formal recognition programmes and celebrating milestones can significantly boost employee morale.

Strategic recruitment and retention tactics: effective recruitment and retention strategies can reduced staff turnover and lower the costs associated with hiring an onboarding new employees. Organisations should

focus on nurturing internal talent and offering opportunities for career growth, such as clear path for professional advancement and competitive benefits packages.

Integrating HRM with business strategy: HRM strategies must be integrated with the overall business strategy to ensure alignment with the organisation goals and objectives. This alignment ensure that HRM practises contribute directly to financial outcomes by efficiently leveraging human resources to meet organisational targets. By implementing those recommendations, companies can strengthen their workforce, reduce costs, enhance overall performance.

Restrictions and Prospects for Further Investigation Notwithstanding the importance of the results, there are several restrictions on the study. First, the results may not be as broadly applicable as they may be since only a small number of businesses provided data for the collection. Second, the study relied on managers' and employees' self-reports, which might result in subjective evaluations. It is advised that the sample be increased for further study to include additional organizations from various

To get more objective findings, it will also be helpful to apply extra data gathering techniques like observation and secondary data analysis. The long-term impacts of HRM practices on organizational performance may potentially be the subject of future study. Studies with a longer time span would offer important insights into the long-term effects of consistent HRM investment on financial success, job happiness, and productivity. Furthermore, examining the effects of particular HRM strategies in many cultural and economic contexts may aid in the identification of optimal practices suited to varied organizational situations.

Conclusion

HRM's Effect on Employee Outcomes

The study's findings emphasize how critical it is to put in place efficient HRM procedures if you want your workforce to be highly productive and satisfied with their jobs. Data research revealed that businesses who actively support their workers' growth and training saw notable increases in productivity. Employee performance and training and development have a substantial positive link (correlation coefficient 0.65), according to regression study. they results are consistent with the human capital hypothesis, which holds that employee performance may be increased via training and development, as they are important means of enhancing employees' abilities. The significant influence that regular, organized staff training programs may have on raising output and operational effectiveness inside businesses is highlighted by the correlation coefficient of 0.65.

The study also discovered that organizations that use motivational programs and recognition and reward systems have far better levels of work satisfaction. The significance of motivating programs in raising employee engagement is demonstrated by a 20 % rise in work satisfaction and a positive link (correlation coefficient 0.70) between HRM practices and job satisfaction. These findings are consistent with the social exchange hypothesis, which holds that workers who experience recognition and support from their employer become more engaged and driven at work. Respondent interviews further supported the idea that recognition initiatives support the development of an inclusive workplace and a cooperative, respectful corporate culture. According to the findings, employees are more inclined to show loyalty and devotion to their company when they believe their efforts are recognized, which improves overall performance.

Lower Employee Attrition

Additionally, the study showed how HRM strategies have a major influence on employee attrition. Strategic recruiting and retention are crucial, as seen by the 10 % decrease in personnel turnover that resulted from the implementation of HRM techniques. Employee motivation and development investments lower employees' inclination to quit the company, which lowers the expense of hiring and onboarding new hires. This is supported by the negative connection (correlation coefficient -0.50) between HRM practices and employee turnover. Positive company culture, enhanced working conditions, career possibilities and growth, motivational initiatives, and recognition all contribute significantly to lower employee turnover. Employers who use these HRM techniques foster a more appealing and stable workplace, which aids in retaining skilled workers. Companies with successful recognition and incentive systems had 31 % lower employee turnover, according to a 2014 Towers Watson research. Additionally, a 2016 Gallup study found that workers are 59 % less likely to leave a company if they have opportunity to grow and progress in their professions. Moreover, the introduction of well-organized career development initiatives and distinct professional advancement pathways considerably diminishes the probability of workers searching for prospects elsewhere, thereby cultivating a devoted and faithful staff.

How HRM Affects Financial Performance

Financial data analysis has shown that the use of HRM practices improves an organization's profitability and earnings. The 15 % rise in earnings and the 10 % decrease in labor expenses support earlier research's conclusions on HRM's major influence on businesses' financial performance. The significance of incorporating HRM strategies into an organization's overall business strategy to achieve sustainable development and competitive advantage is shown by the positive connection (correlation coefficient of 0.55) found between HRM practices and earnings. Businesses that make aggressive HRM investments get improved financial outcomes. According to research by Pfeffer (1994), businesses that use essential HRM practices—like job security, suitability-based hiring, high pay, comprehensive training, and employee involvement in decision-making—show enhanced financial performance, including higher profitability and profits. According to Huselid (1995), businesses that use high-performance HRM systems also show increased profitability and earnings. Human capital is effectively exploited to produce business outcomes when HRM practices are in line with corporate objectives. Organizations may improve their competitive position in the market by achieving significant cost savings and revenue growth via the optimization of HRM processes.

Useful Suggestions

Several useful suggestions may be made based on the findings for businesses looking to enhance their key performance indicators through human resource management: Investing in Education and Training Frequent training and development initiatives enhance workers' abilities and output. To improve their human capital, organizations ought to think about putting these kinds of initiatives into place. In addition to job-specific training, this also entails leadership development initiatives that ready workers for promotions within the company. Constant investment in training makes sure that workers are competitive and adaptive in a market that is changing all the time.

Motivational Programs and Recognition: Increasing job satisfaction and motivation is a key function of employee recognition and incentive systems. Companies need to come up with plans for praising staff members' accomplishments and fostering a happy workplace. Employee morale may be considerably raised by putting in place official recognition programs and commemorating accomplishments. A culture of gratitude and inspiration may be established through recognition programs like Employee of the Month, performance incentives, and public acknowledgment of accomplishments.

Strategic Personnel Recruitment and Retention: Putting strategies in place to find and hire bright workers lowers staff turnover and the expense of hiring and onboarding new hires. Organizations need to concentrate on fostering internal skills and provide chances for professional advancement.

This may entail establishing unambiguous professional advancement routes, providing attractive benefits packages, and cultivating a positive work atmosphere. Prioritizing work-life equilibrium, adaptable work schedules, and avenues for career advancement might augment worker contentment and retention. **Integration of HRM with Business Strategy:** It's critical that HRM strategies are incorporated into the organization's overarching business plan. This will guarantee that HRM procedures are in line with the organization's aims and objectives, which will eventually increase financial outcomes. When HRM and business strategy are in sync, human resources are used efficiently to accomplish organizational objectives. The long-term vision and goal of the company should be supported by strategic HRM initiatives, which guarantee that human capital contributes to competitive advantage and sustainable growth.

Restrictions and Prospects for Further Investigation

Notwithstanding the importance of the results, there are several restrictions on the study. First, the results may not be as broadly applicable as they may be since only a small number of businesses provided data for the collection. Second, the study relied on managers' and employees' self-reports, which might result in subjective evaluations. It is advised that the sample be increased in future studies to include more companies from other industries. To get more objective findings, it will also be helpful to apply extra data gathering techniques like observation and secondary data analysis.

The long-term impacts of HRM practices on organizational performance may potentially be the subject of future study. Studies with a longer time span would offer important insights into the long-term effects of consistent HRM investment on financial success, job happiness, and productivity. Furthermore, examining the effects of particular HRM methods in several cultural and economic contexts may aid in the identification of optimal practices suited to varied organizational settings. The impact of new developments in HRM, such as remote work arrangements and digital HRM tools, on the field should also be the subject of research. Investigating the use of artificial intelligence into HRM procedures may yield further knowledge on how technology might improve the efficacy and efficiency of HRM. Future research endeavors can offer a more thorough comprehension of the dynamic and varied nature of human resource management by tackling these

constraints and investigating novel study pathways. This will make it possible for businesses to put into practice HRM methods that are more successful and improve employee outcomes while also propelling business success in a global market that is becoming more and more competitive.

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Персоналды басқару және оның қызметкерлерге әсері, ұйымдардағы ұйымдастырушылық және қаржылық нәтижелер.

Андатпа

Мақсаты: Адам ресурстарын басқарудың (HRM) қызметкерлердің нәтижелеріне, ұйымдық және қаржылық көрсеткіштерге әсерін зерттеу.

Әдістер: Деректерді талдаудың сандық және сапалық әдістері қолданылды. Үлгі 500 қызметкерді және өндіріс, денсаулық сақтау, қызмет көрсету және білім беру сияқты әртүрлі секторлардан 100 ұйымды қамтыды. Деректер сауалнамалар мен менеджерлер мен қызметкерлермен жартылай құрылымдалған сұхбаттар арқылы жиналды. SPSS бағдарламалық қамтамасыз етуін пайдалана отырып, регрессиялық және корреляциялық талдаулар қолданылды.

Қорытынды: HRM практикаларын енгізу еңбек өнімділігін 15 %-ға, жұмысқа қанағаттануды 20 %-ға жақсартты және қызметкерлердің айналымын 10 %-ға төмендетті. HRM және жұмыспен қанағаттану арасындағы күшті корреляция (корреляция коэффициенті 0,70) және кадрлар айналымымен кері корреляция (-0,50) анықталды. Компаниялардың пайдасы 15 %-ға артып, персонал шығындары 10 %-ға төмендеді.

Тұжырымдама: Қызметкерлерді тану, мотивациялық бағдарламалар және үздіксіз даму сияқты тиімді HRM тәжірибелері өнімділіктің, жұмыспен қанағаттанудың артуына және ұйымдық мәдениеттің нығайуына ықпал етеді, бұл қаржылық көрсеткіштердің жақсаруына және кадрлар айналымының төмендеуіне әкеледі. HRM тәжірибелерін жүйелі түрде енгізу ұйымның ұзақ мерзімді табысына елеулі әсер етуі мүмкін, өйткені бұл адам ресурстарының тиімділігін арттыруға бағытталған маңызды құрал болып табылады.

Кілт сөздер: адам ресурстарын басқару, HRM, қызметкерлердің нәтижелері, ұйымдық көрсеткіштер, қаржылық көрсеткіштер, мотивация, өнімділік, ұйымдық мәдениет, оқыту және дамыту.

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Управление персоналом и его влияние на сотрудников, организационные и финансовые результаты в организациях

Аннотация

Цель: Изучить влияние управления человеческими ресурсами (HRM) на результаты сотрудников, организационные и финансовые показатели.

Методы: Использовались как количественные, так и качественные методы анализа данных. Выборка включала 500 сотрудников из 100 организаций различных секторов, таких как производство, здравоохранение, услуги и образование. Данные собирались с помощью опросов и полуструктурированных интервью с менеджерами и сотрудниками. Были применены статистические методы, включая регрессионный и корреляционный анализ, с использованием программного обеспечения SPSS.

Результаты: Внедрение HRM-практик улучшило производительность труда на 15 %, удовлетворенность работой на 20 % и снизило текучесть кадров на 10 %. Было выявлено сильное положительное соотношение между HRM и удовлетворенностью работой (коэффициент корреляции 0,70) и отрицательная корреляция с текучестью кадров (-0,50). Прибыль компаний увеличилась на 15 %, а затраты на персонал снизились на 10 %.

Выводы: Эффективные HRM-практики, такие как признание сотрудников, мотивационные программы и непрерывное развитие, способствуют повышению производительности, удовлетворенности работой и укреплению организационной культуры компании, что приводит к улучшению финансовых показателей и снижению текучести кадров каждый год.

Ключевые слова: управление человеческими ресурсами, HRM, результаты сотрудников, организационные показатели, финансовые показатели, мотивация, производительность, организационная культура, обучение и развитие.

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Удержание персонала медицинской организации в сельской местности

Аннотация

Цель: Настоящая статья направлена на анализ эффективности существующих мер и разработку продвинутых стратегий для улучшения удержания медицинских кадров в сельской местности Казахстана, с акцентом на анализ программ и инициатив, определение факторов, влияющих на удержание персонала, и разработку улучшенных стратегий удержания.

Методы: Исследование включало два электронных поиска в Medline (через PubMed) для выявления качественных исследований о факторах, влияющих на удержание врачей в сельской местности, а также анкетный опрос медицинских работников КГП «Амангельдинская РБ». Применялись методы сбора данных, включая обзор литературы, опросы и анализ полученных данных.

Результаты: Исследование показало, что удержание персонала в сельской местности может быть улучшено за счет комплексных стратегий, включающих улучшение условий труда, повышение уровня оплаты, обеспечение образовательных возможностей и инфраструктуры. Обнаружено, что существует высокий спрос на специалистов определенных медицинских профилей, а равномерный возрастной состав персонала указывает на потенциальную стабильность в составе кадров.

Выводы: Устойчивость и качество медицинского обслуживания в сельских регионах напрямую зависят от эффективности стратегий удержания персонала. Рекомендуется уделить особое внимание улучшению условий работы, повышению зарплаты и созданию благоприятных условий для профессионального и личного роста. Такие меры помогут привлечь и удержать квалифицированных медицинских работников в сельской местности, что в свою очередь способствует повышению доступности и качества медицинских услуг для сельского населения.

Ключевые слова: система здравоохранения, медицина, сотрудник, стратегия, персонал, кадровая политика, удержание персонала.

Введение

В большинстве стран наблюдается неравномерное распределение медицинских работников между городскими и сельскими районами. Примерно 56 % сельского населения мира не имеют доступа к надлежащему медицинскому обслуживанию по сравнению с 22 % городского населения мира (З. Жакупова, 2018).

Всемирная организация здравоохранения (ВОЗ) в 2010 году выпустила рекомендации относительно глобальной политики по расширению доступа к медицинским работникам в отдаленных и сельских регионах путем увеличения их удержания. Эти рекомендации охватывали различные подходы, такие как образование, регулирование, финансовые стимулы и личная и профессиональная поддержка. Некоторые из предложенных стратегий касались целенаправленной политики приема сельских студентов, программ обучения в сельской местности или требований к обслуживанию, а также улучшения условий труда и возможностей для профессионального роста.

В настоящее время в сельской местности Казахстана насчитывается 5397 учреждений здравоохранения, оказывающих медицинские услуги населению. Большинство из них — пункты первой медицинской помощи и амбулатории. Однако важно отметить, что инфраструктура многих медицинских учреждений значительно устарела, уровень износа составляет 52,6 %. В некоторых регионах этот показатель еще выше. Нехватка персонала была постоянной проблемой в секторе здравоохранения в течение нескольких лет.

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В Казахстане ожидаются значительные реформы в области медицины, включая сельское здравоохранение. Эта директива была озвучена Президентом страны Касым-Жомартом Токаевым в его сентябрьском послании (Послание Главы государства Касым-Жомарта Токаева народу Казахстана «Справедливое государство. Единая нация. Благополучное общество»). На ближайшие два года разработан национальный проект под названием "Модернизация сельского здравоохранения". Проект предусматривает строительство медицинских учреждений в 650 селах по всему Казахстану, а также модернизацию и повышение стандартов 32 районных больниц до уровня межрайонных многопрофильных учреждений (Постановление Правительства Республики Казахстан Об утверждении пилотного национального проекта "Модернизация сельского здравоохранения").

Удержание медицинского персонала в сельской местности является критической проблемой, которая существенно влияет на общее качество медицинских услуг. В Казахстане сельские регионы часто сталкиваются с острой нехваткой медицинских работников, что приводит к неадекватному медицинскому обслуживанию значительной части населения.

Цель этой статьи — оценить эффективность существующих мер и разработать усовершенствованные стратегии для улучшения удержания медицинских кадров в сельской местности Казахстана.

Задачи исследования:

1. Обзор государственной политики для удержания медицинского персонала в сельской местности Казахстана;

2. Определение факторов, влияющих на удержание персонала;

3. Разработка улучшенных стратегий удержания.

Научная ценность данного исследования заключается во всестороннем анализе эффективности существующих мер по удержанию медицинского персонала в сельской местности Казахстана и разработке усовершенствованных стратегий для решения этой проблемы. В отличие от предыдущих исследований, которые часто фокусировались на странах с высоким уровнем дохода или конкретных вмешательствах, это исследование дает целостное представление об уникальных проблемах, с которыми сталкивается система здравоохранения в сельской местности Казахстана.

Новизна исследования заключается в многогранном подходе к пониманию факторов удержания, включающем образовательные, профессиональные и социальные аспекты. Подчеркивая важность целенаправленной политики приема сельских учащихся, роль современного медицинского оборудования и решающее влияние социальной поддержки и интеграции в общество, это исследование предлагает инновационные решения, адаптированные к конкретным условиям Казахстана.

Проблема сохранения медицинского персонала в сельской местности является многогранной проблемой, которая существенно влияет на общее качество медицинских услуг. Данное исследование направлено на решение следующих конкретных исследовательских вопросов:

– Какова текущая политика, образовательные программы и системы поддержки для удержания медицинского персонала в сельской местности Казахстана?

– Какие факторы наиболее существенно влияют на удержание медицинского персонала в этих регионах?

– Насколько эффективны финансовые стимулы по сравнению с другими неденежными факторами для удержания медицинских работников в сельской местности?

– Какую роль играет современная медицинская инфраструктура и оборудование в удовлетворенности работой и сохранении здоровья сельских медицинских работников?

Литературный обзор

Отобранные исследования должны были соответствовать конкретным критериям включения, с акцентом на аналитические или описательные исследования, направленные на выявление факторов, обычно ассоциируемых с врачами, работающими в сельской местности.

В 2015 году в рамках Кокрейновского систематического обзора были изучены мероприятия, направленные на увеличение числа работников здравоохранения в сельской местности. Хотя было выявлено только одно контролируемое исследование, убедительные доказательства были найдены в обсервационных и когортных исследованиях. Эти данные подчеркивают преимущества отбора студентов из сельской местности и их намерение работать в сельской местности, положительное влияние опыта работы в сельской местности на студентов-медиков и врачей-терапевтов во время их

обучения, а также эффективность прямых финансовых стимулов для привлечения медицинских работников. Однако стратегии правоприменения, направленные на устранение краткосрочной нехватки персонала, могут иметь непреднамеренные последствия для удержания практикующих врачей в сельских районах (Н. Дробны, 2023).

В 2016 году в систематическом обзоре были рассмотрены стратегии найма и удержания персонала для первичной медико-санитарной помощи, включая некоторые выводы, относящиеся к сельской рабочей силе. В ходе обзора были представлены доказательства, подтверждающие размещение студентов бакалавриата и магистратуры в районах с недостаточным уровнем обслуживания и выборочный набор студентов-медиков. Однако следует отметить, что исследование в первую очередь было сосредоточено на мероприятиях, связанных с первичной медико-санитарной помощью в странах с высоким уровнем дохода.

В многочисленных исследованиях изучалась эффективность финансовых стимулов для удержания медицинских работников в сельской местности. Например, исследование, проведенное Lehmann (2008), показало, что надбавки к заработной плате, жилищные пособия и программы погашения студенческих займов существенно влияют на уровень удержания (U. Lehmann, 2008). Аналогичным образом, исследование Вуукх подтверждает идею о том, что финансовые стимулы имеют решающее значение, но сами по себе недостаточны (P. Вуукх, 2010).

Рабочая среда и удовлетворенность работой являются важнейшими факторами, определяющими удержание персонала. Исследования, проведенные Dolea и Adams подчеркивают важность благоприятной рабочей среды, возможностей для профессионального развития и управляемой рабочей нагрузки. Эти факторы способствуют общей удовлетворенности работой и долгосрочной приверженности работе в сельском здравоохранении (Dolea & Adams, 2010).

Непрерывное профессиональное развитие и доступ к обучению подчеркиваются как необходимые условия удержания персонала. Исследование, проведенное Humphreys (2009), показало, что работники здравоохранения в сельской местности, которые имеют регулярные возможности для обучения и карьерного роста, с большей вероятностью останутся на своих должностях (Humphreys, 2009). Кроме того, Strasser (2016) определил роль программ обучения сельскому здравоохранению в подготовке и поощрении студентов-медиков к работе в сельской местности (Strasser, 2016).

Правительство прилагает усилия для решения проблемы обеспечения медицинским персоналом различными способами. Однако многие выпускники медицинских вузов по-прежнему проявляют нежелание работать в сельской местности. Основными причинами такого нежелания являются отсутствие инфраструктуры и, в некоторой степени, уровень заработной платы (Т.В. Берглезова, 2010).

Ключевые факторы, способствующие удержанию медицинских работников в сельской местности, включают в себя различные универсальные элементы. К ним относятся наличие сельского происхождения, положительный опыт работы в сельской местности во время обучения или в начале после окончания учебы, а также получение личной и профессиональной поддержки (Г. Джунсяо, 2011). Хотя финансовые стимулы оказывают ограниченное влияние на удержание персонала, их эффективность зависит от конкретного контекста. Эффективные стратегии включают отбор студентов из сельской местности для поступления в медицинские школы и программы бакалавриата, а также обеспечение ранней последиplomной подготовки в сельской местности (Н.В. Белова, 2014).

Удержание сельского медицинского персонала требует многоаспектных стратегий, адаптированных к конкретным условиям. Подходы, успешные в странах с высоким уровнем дохода, могут оказаться неприменимыми в странах с низким уровнем дохода. При разработке мер по удержанию крайне важно учитывать семейную ячейку, а не сосредотачиваться исключительно на отдельных практикующих специалистах. Эффективные стратегии удержания сельской рабочей силы должны учитывать социальный контекст практикующего специалиста и влияние его семьи на принятие решений.

Для увеличения числа набираемых и удерживаемых сельских врачей в игру вступают несколько важнейших факторов. Они включают в себя отбор студентов, которые родом из сельской местности и выражают желание учиться и проходить практику в сельской местности. Важно способствовать позитивному взаимодействию между студентами-медиками и сельской общиной во время их обучения и первых лет обучения в аспирантуре. Кроме того, жизненно важно обеспечить всестороннюю профессиональную поддержку. Это предполагает обеспечение того, чтобы инфраструктура здравоохранения в сельской местности была хорошо оборудована и укомплектована

персоналом, что обеспечивает оптимальную преемственность персонала, профессиональное разнообразие, безопасность на рабочем месте, удовлетворенность работой, гибкий график работы и поддержание здорового баланса между работой и личной жизнью. Не менее важна личная поддержка, охватывающая социальные факторы, улучшающие условия жизни и работы в сельской местности, такие как поддержка сообщества и интеграция семей медицинских работников в сельское общество. Хотя финансовые стимулы играют меньшую роль, они могут способствовать удержанию персонала в сочетании с вышеупомянутыми факторами, предлагая соответствующее вознаграждение и компенсацию за трудности сельской жизни, тем самым повышая привлекательность сельской практики (А. Honda, 2015).

Методы

В исследовании использовался смешанный подход, сочетающий как качественные, так и количественные методы сбора данных, чтобы получить всестороннее представление о факторах, влияющих на удержание медицинских работников в сельской местности Казахстана. Объект исследования: КГП «Амангельдинская РБ». Коммунальное государственное предприятие «Амангельдинская районная больница» находится в Костанайской области. Амангельдинская районная больница является единственным лечебным учреждением, оказывающим специализированную стационарную медицинскую помощь населению района. В больнице трудятся 20 врачей, а также 128 специалистов среднего медицинского персонала. Был проведен опрос. В исследовании приняли участие 45 медицинских работников КГП «Амангельдинская РБ». Была разработана структурированная анкета, включающая как закрытые, так и открытые вопросы. Целью анкеты было собрать демографическую информацию, уровень удовлетворенности работой, предполагаемые препятствия для удержания на работе и предложения по улучшению. Опросы распространялись как в электронном, так и в бумажном формате для обеспечения максимального охвата и участия. Электронные опросы рассылались по электронной почте и через платформы онлайн-опросов, в то время как бумажные опросы. Анкетирование проводилось в течение месяца. Закрытые вопросы были проанализированы с использованием статистических методов. Для обобщения данных были рассчитаны описательные статистические данные, такие как частота и процентное соотношение. Ответы с открытым текстом анализировались с использованием тематического анализа.

В опросе были охвачены следующие вопросы:

Какова ваша возрастная группа?

Каков ваш пол?

Сколько лет вы работаете в сфере здравоохранения?

Насколько вы удовлетворены текущими условиями труда?

Считаете ли вы, что у вас есть достаточный доступ к необходимому медицинскому оборудованию и расходным материалам?

Насколько вы удовлетворены наличием современного медицинского оборудования на вашем рабочем месте?

Есть ли у вас достаточные возможности для профессионального обучения и повышения квалификации?

Как часто вы участвуете в программах профессионального развития?

Как бы вы оценили общую рабочую обстановку в вашей больнице?

Довольны ли вы поддержкой и сотрудничеством, которые вы получаете от своих коллег?

Насколько вы удовлетворены своей текущей зарплатой?

Считаете ли вы, что ваша компенсация справедлива по сравнению с объемом и сложностью выполняемой вами работы?

Планируете ли вы продолжать работать в сельской местности в долгосрочной перспективе? (Да, нет, не уверены)

Какие факторы повлияли бы на ваше решение остаться на вашей нынешней должности или уйти с нее?

Какие улучшения вы хотели бы видеть в условиях вашего труда и окружающей среде?

Какая дополнительная поддержка или ресурсы помогли бы вам лучше выполнять свою работу?

Результаты

В рамках исследования был проведен всесторонний обзор государственной политики, образовательных программ и систем поддержки для удержания медицинского персонала в сельской местности Казахстана

Основываясь на официальных данных Министерства здравоохранения, пять регионов Казахстана испытывают наиболее значительную нехватку врачей (рисунок 1).

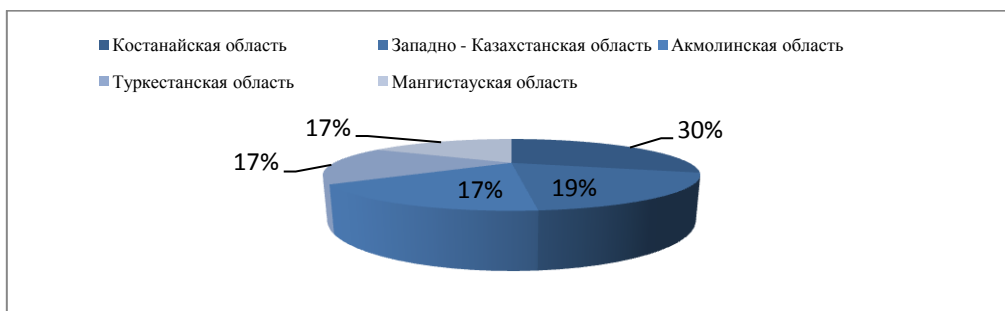


Рисунок 1. Дефицит врачей в регионах

Примечание — составлен авторами на основе (Официальный отчет по кадровому обеспечению здравоохранения)

Антилидером в этом списке является Костанайская область, где в медучреждениях не хватает порядка 441 штатной единицы. Затем идет Западно-Казахстанская — 283, Акмолинская — 259, Туркестанская — 258 и Мангистауская — 256 (рисунок 2) (Н. Дробны, 2023).

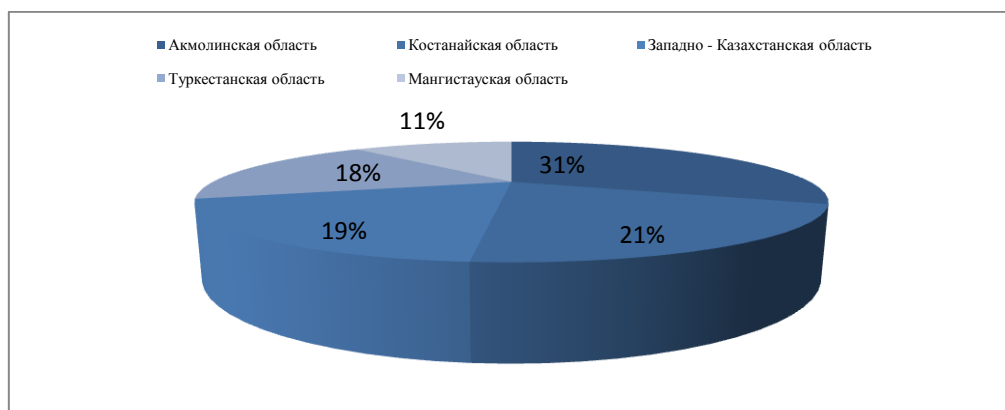


Рисунок 2. Дефицит врачей в селе

Примечание — составлен авторами на основе (Официальный отчет по кадровому обеспечению здравоохранения)

Что касается нехватки врачей в сельской местности, то самый высокий дефицит наблюдается в Акмолинской области, где не хватает 187 штатных единиц. За ним следуют Костанай со 124 вакансиями, ЗКО со 114, Туркестан со 111 и Мангистау с 68 специалистами. К наиболее дефицитным специалистам в этих регионах относятся врачи общей практики, акушеры-гинекологи, педиатры, терапевты и хирурги.

С 2019 года 1576 специалистов получили подъемные пособия, 1115 человек были обеспечены жильем, а 503 человека получили другие формы социальной поддержки. За последние три года местными исполнительными органами разработан комплексный пакет дополнительных мер социальной поддержки, направленных на привлечение и стимулирование молодых специалистов к работе в сельской местности. Эти меры включают отмену пособий, аренду жилья, помощь в оплате социальной аренды, услуги связи, предоставление мест в детских садах и возможности трудоустройства супругов.

Для дальнейшего решения проблемы нехватки медицинских работников были созданы филиалы НАО "Медицинский университет Семей" в Павлодаре и НАО "Западно-Казахстанский медицинский университет им. М. Оспанова" в Атырау, Актау, Уральске и Кызылорде (Е.М. Тищенко, 2009).

Министерство выделяет постепенное повышение заработной платы медицинских работников в качестве еще одной позитивной меры по обеспечению доступности квалифицированных специалистов в отрасли.

В 2019 году средняя заработная плата врачей составила 189 300 тенге. Однако к 2022 году она выросла до 415 900 тенге. Это повышение заработной платы также распространилось на средний медицинский персонал, включая фельдшеров скорой медицинской помощи. Их средняя заработная плата выросла со 120 500 тенге в 2019 году до 208 000 тенге в 2022 году. Кроме того, планируется даль-

нейшее повышение средней заработной платы врачей до 531 000 тенге и средней заработной платы медицинских работников до 249 000 тенге к 2023 году.

Для удовлетворения потребностей практического здравоохранения ежегодно выделяется государственный образовательный заказ на подготовку врачей. Ожидается, что количество мест для подготовки клинических специалистов постепенно увеличится с 1500 в 2022 году до 1700 в 2023 году, 1800 в 2024 году и 2000 в 2025 году (А.М. Беркутов, 2009).

Министерство здравоохранения делегировало ответственность за укомплектование кадрами организаций общественного здравоохранения, включая определение системы социальной поддержки и мер удержания молодых специалистов, а также процедур и финансирования социальной поддержки, акиматам (местным исполнительным органам) городов и областей.

Насколько же удастся решать вопрос с дефицитом кадров в отдельно взятой Костанайской области, в которой, по статистике Минздрава, имеется самый большой дефицит медицинских кадров? По данным Костанайского областного управления здравоохранения, в селах региона не хватает 88 специалистов, по республиканской статистике — 123,75 штатных единиц.

Приведем, к примеру, КГП «Амангельдинская районная больница» Костанайской области.

Социальный пакет включает в себя подъемные пособия в размере с 2 до 5 млн тенге по программе «С дипломом в село» 100 МРП. Беспроцентные кредиты на покупку жилья в размере 1500 МРП.

В результате в сельской местности существует высокий спрос на терапевтов, врачей общей практики, акушеров-гинекологов и онкологов. Среди районов наиболее острая нехватка медицинских кадров наблюдается в Мендыкаринском, где 10 вакантных должностей, за ним следуют Жангельдинский и Карасуский районы, где на каждый район требуется по 9 врачей.

Официальные данные показывают, что только в 2022 году произошел естественный отток 95 врачей, в то время как прибыло 118 новых врачей.

Для решения проблемы нехватки кадров Департамент здравоохранения в сотрудничестве с медицинскими организациями посещает высшие медицинские учебные заведения в Астане, Караганде, Семее, Актобе, Алматы и Шымкенте. В этом году они успешно привлекли 44 врача в районные медицинские организации.

В 2020 году областной акимат (местный исполнительный орган) начал предоставлять подъемные пособия врачам, которые обязуются проработать в сельской местности не менее 5 лет. Изначально врачам в сельской местности предлагали по 2 миллиона тенге каждому. В этом году сумма выплат увеличилась до 5 млн тенге для специалистов по критически дефицитным специальностям, таким как анестезиологи-реаниматологи, акушеры-гинекологи, неонатологи и педиатры. Для кардиологов, онкологов, инфекционистов, психиатров, фтизиатров, гастроэнтерологов, невропатологов, патологоанатомов, нефрологов, аллергологов, гематологов и реабилитологов выплаты увеличены до 3,5 млн тенге. В дополнение к отмене пособий предпринимаются усилия по обеспечению врачей жильем, и по состоянию на 1 октября 2022 года 18 врачей, прибывших в сельскую местность, получили жилищную поддержку (V. Grant, 2007).

Поэтому, чтобы привлечь врачей к работе в сельской местности, важно не только предлагать возможности трудоустройства, но и создавать благоприятные условия для их работы и качества жизни.

Приведем, к примеру КГП "Рудненская городская поликлиника". Проанализируем кадровое обеспечение. Общая численность персонала: 672 человека. Врачи — 105, средний медицинский персонал — 324, младший медицинский персонал — 93, другие — 150

Нехватка кадров по специальностям: педиатрия, фтизиатрия, детская оториноларингология, пульмонология, общая врачебная практика, офтальмология, онкология.

Таким образом, предложены следующие усилия по привлечению молодых специалистов:

– Набор 7 врачей общей практики (GPS) в 2022 году

– Подбор специалистов: реабилитолога, окулиста, детского хирурга, кардиолога, невролога

Рассмотрим Реализацию Послания Главы государства народу Казахстана. Национальный проект «Модернизация сельского здравоохранения».

Акцентируем внимание на строительстве объектов здравоохранения (рисунок 3):

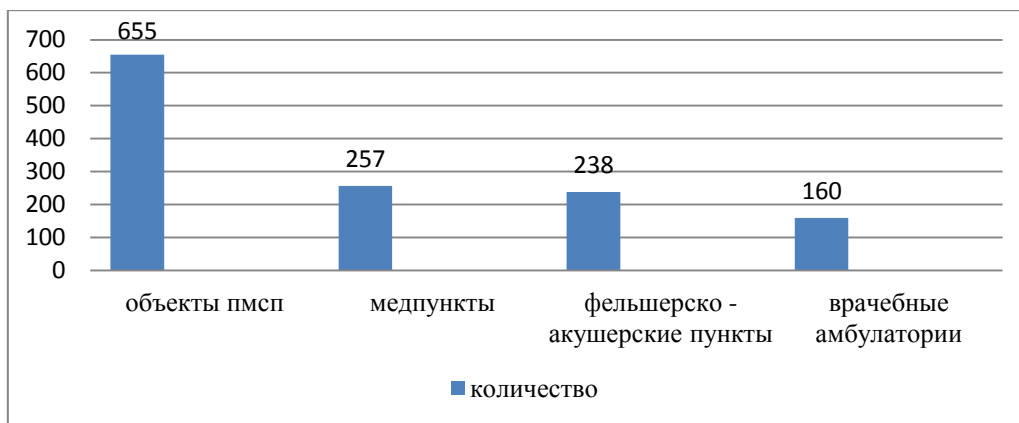


Рисунок 3. План строительства объектов здравоохранения до 2025 г.

Примечание — составлен авторами на основе (Концепция развития здравоохранения Республики Казахстан до 2026 года)

Завершение строительства планируется в 2023 году — 99 объектов, в 2024 году — 556 объектов. По оснащению медтехникой запланирована закупка 965 ед. медтехники на общую сумму 46 млрд тенге.

До конца 2025 года планируется подготовить в 7 медвузах, 68 медколледжах (Рисунок 4):

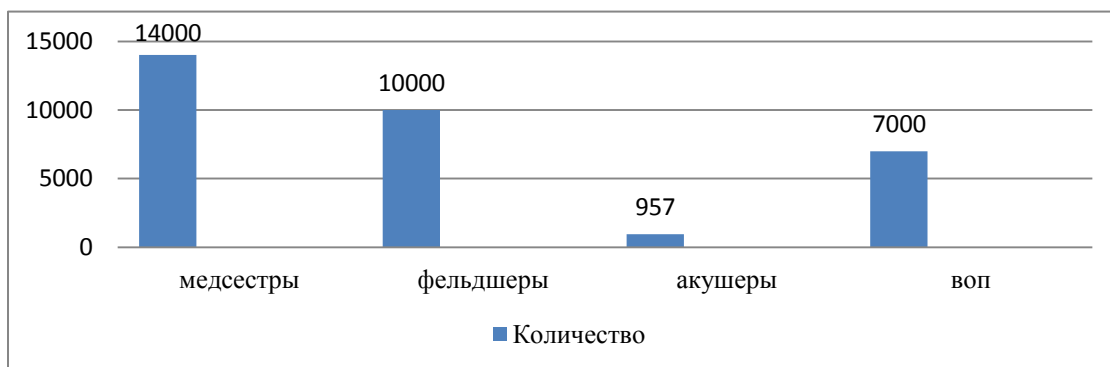


Рисунок 4. Прогнозируемое количество медицинского персонала к 2025 г.

Примечание — составлен авторами на основе (Концепция развития здравоохранения Республики Казахстан до 2026 года)

По результатам анкетирования были получены следующие данные: Амангельдинская районная больница характеризуется равномерным возрастным составом сотрудников, что указывает на потенциальную стабильность в персонале. Преобладание сотрудников в возрасте от 31 до 50 лет говорит о наличии опыта и знаний в коллективе, что является активом для организации. Однако, учитывая, что только 22 % составляют молодые специалисты, организации следует усилить усилия по привлечению молодежи, чтобы обеспечить приток новых идей и поддержание актуальности медицинских практик.

Равномерное распределение мужчин и женщин с небольшим преобладанием последних (60 % против 40 %) указывает на гендерное разнообразие, что может способствовать балансу и гармонии в рабочем коллективе.

Среди сотрудников большинство имеют стаж работы от 5 до 10 лет (44 %), что говорит о наличии зрелых специалистов, готовых делиться опытом. Однако, 33 % сотрудников с стажем менее 5 лет нуждаются в дополнительных образовательных мерах и поддержке для полноценного интегрирования в коллектив и укрепления профессиональных навыков.

38 % сотрудников сообщили о хороших условиях и доступности оборудования и лекарств. Это положительный фактор, который может способствовать качественному оказанию медицинской помощи и повышать уровень удовлетворенности сотрудников. 48 % сотрудников считают условия удовлетворительными, но указывают на некоторые ограничения. Это может включать в себя ограничения в доступности оборудования или лекарств, которые могут потребовать улучшения и оптимизации для более эффективной работы. 14 % сотрудников отметили плохие условия и ограниченное оборудование. Это может быть серьезной проблемой, которую необходимо рассмотреть. Недостаток оборудования и плохие условия могут негативно влиять на работу сотрудников и качество медицинской помощи. Уровень комфорта и доступность оборудования и лекарств может сильно влиять на

решение сотрудников о том, оставаться ли в организации или уходить. Поэтому удовлетворение этими аспектами может сыграть важную роль в стратегии удержания персонала. 54 % сотрудников указали, что в учреждении есть ограниченный набор оборудования. Это может стать проблемой для эффективной медицинской практики и влиять на работу и удовлетворенность персонала. 28 % сотрудников сообщили о наличии полного набора оборудования. 18 % сотрудников указали на отсутствие современного оборудования. На основе этого анализа, организация может разработать план инвестиций для улучшения оборудования и обеспечения лучших условий работы для сотрудников, что в свою очередь может способствовать увеличению качества медицинской помощи и привлечению и удержанию профессиональных медицинских работников. Анализ возможностей для профессионального обучения и повышения квалификации среди сотрудников Амангельдинской районной больницы важен для понимания их потребностей в развитии профессиональных навыков и знаний. Этот анализ может сыграть ключевую роль в разработке стратегии привлечения и удержания персонала. Большинство сотрудников (58 %) указали, что у них ограниченные возможности для профессионального обучения и повышения квалификации. Это может быть знаком проблем в доступности курсов и тренингов, что может ограничивать их развитие и мотивацию. Важно разработать и внедрить образовательные инициативы, которые соответствуют потребностям сотрудников. Это может включать в себя организацию курсов, внутренних тренингов или сотрудничество с образовательными учреждениями.

44 % сотрудников утверждают, что их вознаграждение не соответствует объему и сложности их работы. Это может быть сигналом о серьезных проблемах с заработной платой в организации, которые могут снижать уровень мотивации и удовлетворенности сотрудников. 38 % сотрудников выразили мнение, что их вознаграждение соответствует работе лишь в некоторой степени. 18 % сотрудников считают, что их вознаграждение соответствует объему и сложности работы. Это отражает позитивное мнение о финансовых условиях среди этой группы сотрудников.

Недостаток удовлетворенности заработной платой может негативно сказаться на мотивации и удержании персонала. Это делает важным рассмотрение финансовой стимуляции как одного из ключевых элементов стратегии удержания персонала.

Анализ мнения сотрудников относительно того, какие изменения или улучшения в рабочих условиях они хотели бы видеть в будущем, является важным шагом при разработке стратегии удержания персонала и улучшения условий труда. 52 % сотрудников выразили желание видеть улучшение оборудования и условий работы. Это свидетельствует о том, что сотрудники оценивают важность наличия современного оборудования и комфортных условий для выполнения своих профессиональных обязанностей. Поэтому инвестиции в обновление и улучшение рабочего окружения могут считаться приоритетом. 28 % сотрудников хотели бы видеть больше возможностей для обучения. Это указывает на желание сотрудников развиваться профессионально, что может способствовать повышению их квалификации и мотивации. Организация может предоставлять разнообразные образовательные ресурсы и тренинги, чтобы поддерживать их профессиональное развитие. 20 % сотрудников упомянули "другие изменения". А именно: больше возможностей для профессионального роста, улучшение системы графиков и гибкости в рабочем времени.

В целом, анализ указывает на то, что для улучшения удержания медицинского персонала в сельской местности необходимо сфокусироваться на нескольких ключевых аспектах: улучшение условий труда, повышение уровня оплаты труда, расширение образовательных и карьерных возможностей, инвестиции в медицинское оборудование и инфраструктуру. Эти меры могут помочь не только повысить удовлетворенность существующего персонала, но и сделать работу в сельской местности более привлекательной для потенциальных кадров.

Обсуждение

Основываясь на «Руководство ВОЗ по развитию, привлечению, набору и удержанию кадров здравоохранения в сельских и отдаленных районах» (Женева, 2021) предлагаются следующие рекомендации:

1. Для привлечения студентов из сельской местности к программам подготовки медицинских работников предлагается использовать политику целевого приема. Обеспечение прозрачности и справедливости в процессе отбора путем привлечения местных сообществ и заинтересованных сторон может повысить доверие и приверженность делу. Предоставление постоянной поддержки от начального до высшего образования может помочь сократить разрыв между учащимися из отдаленных районов, гарантируя им наличие ресурсов для достижения успеха.

2. Размещать медицинские учебные заведения ближе к сельским районам. Вовлечение местных заинтересованных сторон в создание и разработку учебных программ медицинских учреждений гарантирует, что программы будут адаптированы к потребностям местного населения. Обеспечение долгосрочной жизнеспособности и подотчетности этих учреждений укрепляет доверие сообщества и способствует достижению целей регионального развития. Увязка инвестиций в образование с более широким развитием сельской инфраструктуры может усилить общий эффект, улучшая как результаты обучения, так и условия жизни в сельской местности.

3. Ознакомление студентов, изучающих различные медицинские дисциплины, с жизнью в сельских и удаленных населенных пунктах и клинической практикой в этих районах. Содействие сотрудничеству и скоординированный процесс отбора для прохождения практики в сельских клиниках расширяют понимание студентами практики сельского здравоохранения и повышают их приверженность к ней. Всестороннее знакомство с сельскими медицинскими учреждениями, включая клиническую практику и участие общественности, подготавливает студентов к решению уникальных задач сельской практики.

4. Включить темы сельского здравоохранения в программу обучения медицинских работников. Акцент на навыках, необходимых для практики в сельской местности, и включение вопросов сельского здравоохранения в учебную программу гарантируют, что выпускники будут хорошо подготовлены к работе в этих областях. Адаптация содержания курса к особенностям сельского здравоохранения, таким как эпидемиология и социокультурные аспекты, повышает актуальность и эффективность медицинского образования. Регулярный обзор и обновление содержания сельского здравоохранения гарантирует, что образование остается актуальным и отвечает меняющимся потребностям здравоохранения.

5. Разрабатывать программы непрерывного обучения и повышения профессиональной квалификации, отвечающие потребностям сельских медицинских работников, и обеспечивать доступ к ним, чтобы способствовать их удержанию в сельской местности. Привлечение медицинских работников, администраторов, регулирующих органов и образовательных учреждений к разработке учебных программ гарантирует, что они отвечают потребностям сельских врачей. Обеспечение доступности непрерывного образования в сельской местности с помощью цифровых инструментов или обучения на месте способствует профессиональному росту и удержанию персонала. Предоставление оплачиваемого времени для обучения и компенсации командировочных или других расходов снижает нагрузку на медицинских работников, облегчая их участие в программах обучения.

6. Ввести и регулировать расширенные сферы практической деятельности для медицинских работников в сельских и отдаленных районах. Сотрудничество с регулирующими органами и профессиональными ассоциациями для определения расширенных ролей и компетенций обеспечивает ясность и эффективность оказания медицинской помощи в сельской местности. Обеспечение того, чтобы расширенные роли сопровождались соответствующими системами компенсации и поддержки, обеспечивает удовлетворенность работников и эффективность их работы. Создание надежных механизмов надзора и направления к врачу помогает сельским медицинским работникам выполнять свои расширенные функции, обеспечивая качественное медицинское обслуживание.

7. При обязательной отработке в сельских и отдаленных районах соблюдать права работников здравоохранения и дополнять требования справедливым, прозрачным и равноправным управлением, поддержкой и мерами стимулирования. Разработка справедливой и прозрачной политики в отношении обязательного медицинского обслуживания, которая обеспечивает баланс между потребностями здравоохранения и правами работников, может улучшить соблюдение требований и удовлетворенность. Предоставление надлежащей поддержки и надзора в период обязательного медицинского обслуживания повышает опыт и эффективность медицинских работников. Обеспечение безопасных и благоприятных условий труда в сельских пунктах обслуживания мотивирует работников и эффективно удовлетворяет их потребности.

8. Внедрить соответствующие сети поддержки кадров здравоохранения для медицинских работников в сельских и отдаленных районах. Создание сетей, объединяющих сельских медицинских работников, способствует сотрудничеству и профессиональной поддержке, повышая их способность оказывать медицинскую помощь. Поощрение непрерывного обмена информацией в рамках этих сетей способствует постоянному обучению и решению проблем. Вовлечение местных сообществ и медицинских учреждений в эти сети способствует созданию благоприятной среды и укреплению связей между медицинскими работниками и сообществами, которым они служат.

9. Принять меры по повышению социального признания на всех уровнях для работников здравоохранения в сельских и отдаленных районах. Повышение статуса сельских медицинских работников с помощью наград и общественного признания повышает их мотивацию и общественную ценность. Сотрудничество со средствами массовой информации, общественными организациями и государственными учреждениями в целях празднования достижений сельских медицинских работников способствует формированию положительного имиджа и побуждает большее число людей делать карьеру в сфере сельского здравоохранения.

При внедрении данной стратегии крайне важно обеспечить поддержку широкого круга заинтересованных сторон, особенно со стороны государственных органов. Нужно рассмотреть возможность поощрения сельских медицинских работников и их команд на всех уровнях, путем вручения наград, документирования и публикации их успехов и историй, чтобы привлечь внимание к сельской практике как престижной сфере деятельности. Это, в свою очередь, может стимулировать больше студентов и выпускников выбирать карьеру в сельских районах. Рекомендации касаются подготовки и удержания медицинских работников на всех уровнях в сельской местности.

Заключение

Проблемы в сфере здравоохранения связаны с отсутствием централизованной системы отслеживания персонала и устаревшими, недостаточными кадровыми стандартами. Кроме того, неэффективное использование персонала приводит к увеличению финансовых затрат и необходимости дорогостоящего специализированного обучения. Крайне важно внедрять комплексные стратегии, соответствующие местному контексту. Инициативы, направленные на повышение удержания сельских врачей, должны охватывать несколько этапов карьеры врачей и учитывать требования как семей врачей, так и сельских сообществ, которые они обслуживают (R. Shah, 2021).

В исследовании освещаются значительные проблемы, с которыми сталкиваются системы сельского здравоохранения в Казахстане, в частности нехватка медицинского персонала и различные факторы, влияющие на их удержание. Проведя всесторонний анализ работы Ангельдинской районной больницы, мы выявили ключевые проблемы, такие как потребность в современном медицинском оборудовании, улучшении условий труда, расширении возможностей профессионального развития и адекватной финансовой компенсации. Полученные данные свидетельствуют о том, что, несмотря на сбалансированное возрастное и гендерное распределение персонала, нехватка молодых специалистов и неудовлетворенность обучением и оплатой труда являются серьезными проблемами. В заключение следует отметить, что удержание медицинского персонала в сельской местности представляет собой сложную и многогранную проблему с далеко идущими последствиями для доступности и качества медицинской помощи в регионах с недостаточным уровнем обслуживания.

Научная и практическая значимость этого исследования заключается во всестороннем изучении уникальных проблем, с которыми сталкиваются сельские организации здравоохранения. Это позволило понять острую необходимость в индивидуальных стратегиях удержания персонала, учитывающих отличительные особенности сельской практики.

Это исследование привносит ценные знания в область управления кадрами сельского здравоохранения. Это служит призывом к действию для администраторов здравоохранения, политиков и заинтересованных сторон признать важность удержания персонала в сельской местности. Реализуя предложенные стратегии и рекомендации, можно смягчить проблемы, связанные с текучестью кадров, и создать более стабильную и жизнестойкую рабочую силу здравоохранения в сельских регионах. Результаты этого исследования могут проинформировать политиков в Казахстане и других аналогичных регионах о важнейших факторах, влияющих на удержание медицинского персонала в сельской местности. Понимая эти факторы, власти могут разрабатывать и внедрять целенаправленную политику, направленную на улучшение условий труда, предоставление адекватных финансовых стимулов и расширение возможностей профессионального роста. Это, в свою очередь, поможет создать более привлекательные условия работы для медицинских работников в сельской местности.

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Медициналық ұйымның қызметкерлерін ауылдық жерде ұстау

Аңдатпа

Мақсаты: мақала қолданыстағы шаралардың тиімділігін және бағдарламалар мен бастамаларды жан-жақты талдауға, қызметкерлерді ұстап қалуға әсер ететін факторларды анықтауға және ұстап қалудың жақсартылған стратегияларын әзірлеуге баса назар аударатырып, Қазақстанның ауылдық жерлерінде медициналық кадрларды ұстап қалуды жақсарту үшін озық стратегияларды әзірлеуге бағытталған.

Әдістері: зерттеу ауылдық жерлерде дәрігерлерді ұстап қалуға әсер ететін факторлар туралы сапалы зерттеулерді анықтау үшін Medline-да (PubMed арқылы) екі электрондық іздеуді, сондай-ақ "Амангелді РБ" КМК медицина қызметкерлерінің сауалнамасын қамтыды. Деректерді жинау әдістері қолданылды, соның ішінде әдебиеттерге шолу, сауалнамалар кірді.

Қорытынды: зерттеу көрсеткендей, ауылдық жерлерде қызметкерлерді ұстау еңбек жағдайларын жақсарту, жалақы деңгейін көтеру, білім беру мүмкіндіктері мен инфрақұрылымды қамтамасыз етуді қамтитын кешенді стратегиялар арқылы жақсаруы мүмкін. Белгілі бір медициналық профилдегі мамандарға сұраныс жоғары екендігі анықталды, ал персоналдың біркелкі жас құрамы кадрлар құрамындағы әлеуетті тұрақтылықты көрсетеді.

Тұжырымдама: ауылдық аймақтардағы денсаулық сақтаудың тұрақтылығы мен сапасы қызметкерлерді ұстау стратегияларының тиімділігіне тікелей байланысты. Жұмыс жағдайларын жақсартуға, жалақыны көтеруге және кәсіби және жеке өсу үшін қолайлы жағдайлар жасауға ерекше назар аудару ұсынылады. Мұндай шаралар ауылдық жерлерде білікті медицина қызметкерлерін тартуға және ұстауға көмектеседі, бұл өз кезегінде ауыл тұрғындары үшін медициналық қызметтердің қолжетімділігі мен сапасын арттыруға ықпал етеді.

Кілт сөздер: Денсаулық сақтау жүйесі, медицина, қызметкер, стратегия, қызметкерлер, кадр саясаты, қызметкерлерді ұстап қалу.

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Retention of medical organization personnel in rural areas

Abstract

Object: This article aims at a comprehensive analysis of the effectiveness of existing measures and the development of advanced strategies to improve the retention of medical personnel in rural areas of Kazakhstan, with an emphasis on analyzing programs and initiatives, identifying factors affecting staff retention, and developing improved retention strategies.

Methods: The study included two electronic searches in Medline (via PubMed) to identify qualitative studies on factors affecting the retention of doctors in rural areas, as well as a questionnaire survey of medical workers of KGP "Amangeldinskaya RB". Data collection methods were used, including literature reviews, surveys.

Findings: The study showed that staff retention in rural areas can be improved through comprehensive strategies including improving working conditions, increasing pay levels, providing educational opportunities and infrastructure. It was found that there is a high demand for specialists of certain medical profiles, and the uniform age composition of the staff indicates potential stability in the staff.

Conclusions: The sustainability and quality of medical care in rural regions directly depend on the effectiveness of staff retention strategies. It is recommended to pay special attention to improving working conditions, increasing salaries and creating favorable conditions for professional and personal growth.

Keywords: healthcare system, medicine, employee, strategy, personnel, personnel policy, staff retention.

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Повышение вовлеченности граждан в процесс принятия решений территориального развития путем цифровизации

Аннотация

Цель: Внедрение патисипаторного бюджетирования в цифром формате в целях повышения гражданской активности в принятии управленческих решений территориального развития.

Гипотезой исследования: Цифровое патисипаторное бюджетирование повышают роль институтов местного самоуправления и гражданского общества.

Методы: Контент-анализ был использован для изучения международного опыта и нормативно-правовых актов, регулирующих деятельность местного самоуправления Республики Казахстан и статистические данные официальных структур.

Результаты: Согласно результатам анализа, на территориальное развитие развитых стран влияет политика децентрализации. Как местные самоуправления выполняют свою роль в распределении различных функций в рамках системы государственного управления, тесно связано с уровнем децентрализации, которая имеет решающее значение для регионального развития. Таким образом, в Казахстане проект «Организация комплекса мероприятий, направленных на развитие местного самоуправления» использует цифровую платформу патисипаторного бюджетирования, чтобы привлечь граждан, общественные организации, местные органы власти и собрания местного сообщества к равномерному развитию регионов страны.

Выводы: В настоящее время в Казахстане идет процесс создания новой модели взаимодействия между гражданами и государственным аппаратом, основанной на принципе «гуманизма». Исследования показывают, что использование цифровых платформ помогает гражданам участвовать в процессе принятия управленческих решений. Запущенный по всей республике проект «Берекелі Бастама» может помочь в развитии патисипаторного бюджетирования и развития территории в целом.

Ключевые слова: инновация, цифровизация государственного регулирования, партисипаторное бюджетирование, взаимодействие государства и неправительственных организации, территориальное развитие.

Введение

В наше время, в условиях быстрого развития технологий, вопрос активного участия граждан в процессе принятия решений о развитии территорий становится все более важным. Традиционные способы взаимодействия между властью и населением, хоть и ценные, не всегда обеспечивают нужный уровень участия граждан. В этой связи, цифровизация является значимым инструментом для создания прозрачных, эффективных и привлекательных механизмов взаимодействия.

Во всем мире развития государства и общества происходит через процессы цифровизации. Внедряются инновационные решения в государственном регулировании и местном самоуправлении. Сегодня в Республике Казахстан приняты государственные программы для развития территории на основе цифровых платформ. Одним из таких начинаний является «Берекелі бастама», которые в пилотном режиме протестировано в городе Алматы.

Данное нововведение стал общереспубликанским проектом за счет создания цифровой платформы для электронного голосования со стороны неправительственных организации и граждан на необходимые проекты для развития территории.

В данной статье будут рассмотрены инновационные подходы территориального развития путем повышения вовлеченности гражданского общества при принятии управленческих решений на местном уровне. Согласно отчету ООН в 2022 году по индексу электронного правительства Казахстан занимает в мире 28 место, в Азии 7 место, а среди стран у которые не имеют выход к морю 1

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место. Это говорит о большом потенциале внедрения инновационных методов управления территориального развития.

В текущем этапе развития Республики Казахстан, происходит трансформация структуры государственной власти, где основной частью является переосмыслении института местного самоуправления и ее значимость в территориальном развитии страны. В целях достижения Целей устойчивого развития, разработанных ООН, представителям необходимо участвовать в принятии управленческих решений на местах или иметь широкий охват.

В статье проведён анализ законодательной базы в сфере: «О местном государственном управлении и самоуправлении в Республике Казахстан» за 30 лет.

На основе изученного опыта местного самоуправления зарубежных стран (Польши и Китая) показаны возможные инновационные подходы к государственному управлению территориального развития. Вовлеченность местного населения к принятию управленческих решений повышают роль институтов местного самоуправления через неправительственные организации в формировании стратегического планирования территорий.

Внедрения партисипаторного бюджетирования в цифровом формате, как инструмент вовлечения общества и неправительственных организации (НПО) при принятиях управленческих решении должно стать следующим шагом развития на локальном уровне. Через коллективную ответственность улучшить эффективность управленческих решении, как при освоении бюджета, так и при формировании стратегических планов территориального развития.

Исходя из этого цель нашей статьи показать влияние внедрения цифровой платформы патисипаторного бюджета для развития территориальной местности Республики Казахстан.

Литературный обзор

Граждане, НПО и другие стейкхолдеры должны иметь возможность узнавать о законодательных намерениях органов государственной власти, активно участвовать в процессе принятия решений посредством предложений и замечаний по действующим нормативам. Демократическое правительство обеспечивает диалог и сотрудничество государственным сектором и бенефициаром правил разработанные им соответственно граждане, общественные организации и бизнес ассоциации (Andronicescu, 2021).

Граждане могут участвовать в социальных процессах индивидуально или в группах, объединяясь в разные организаций в зависимости от характера затрагивающей их проблемы. Чаще всего это принимает форму НПО, которые являются добровольными органами самоуправления или организациями, созданными преследовать в основном некоммерческие цели своих учредителей или членов (Recommendation CM/Rec(2007)14 of the Committee of Ministers to member states on the legal status of non-governmental organisations in Europe, 2007).

Сегодня мир невозможно представить без инновационных технологий. Развитие информационно-коммуникационных технологий меняет подходы взаимодействию государства с обществом при принятиях управленческих решений.

Современные государства развивают данное направление через развитие электронного правительства, также с помощью цифровых технологий.

Электронное правительство является инновационным инструментом для тесного взаимодействия граждан, бизнес-структур и государства. З. Фанг в своей статье выделяет восемь различных категорий взаимодействий электронного правительства:

- взаимодействие правительства с гражданами (G2C);
- взаимодействие граждан с правительством (C2G);
- правительство и бизнес (G2B);
- бизнес с правительством (B2G);
- взаимодействие правительства с правительством (G2G);
- правительство и некоммерческие организации (G2N);
- НПО во взаимодействии с правительством (N2G);
- отношения правительства со своими сотрудниками (G2E).

Базовые представление электронного правительства, меняющий образ жизни людей, бизнеса, НПО при взаимодействии с государством (Fang, 2002).

Так, в научном труде С. Осборна и К. Брауна дано определение понятию инновации как внедрение новых элементов в государственную службу в форме новых знаний, новой организации и/или

новых навыков и умений в области управления или процессов, представляя собой разрыв с прошлым (Osborne & Brown, 2012).

В соответствии «Методикой Осло» принятой в инновационной стратегии ОЭСР существуют четыре типа инновацией такие как: продуктовая, процессная, маркетинговая и организационная инновация (OECD/EC Oslo Manual, 2005.).

В научном исследовании Л. Порволь, А. Перейра и К. Дюма говорится о том, что электронное участие как диалог между гражданами и лицами, принимающие решения, которое обеспечивает активное взаимодействие через инновационные каналы для участия общественности. (Porwol et al, 2022)

Так как XXI век — век инновационных технологий, во многих развитых государствах применяется и развивается цифровое правительство предоставляя услуги для улучшения коммуникации между гражданами и властью. С. Клифт считает что, большинство интересующиеся и приверженцы рассуждают электронное правительство как средство расширения демократического участия за счет повышения связи с агентствами, онлайн-публичных слушаний и форумов, также онлайн голосовании на дому (Clift, 2000).

В научной статье Р. Макнил дается определение электронному правительству как инструмент общения и совершения транзакции граждан с федеральными, государственными, местными и муниципальными органами власти с помощью постоянного развивающегося интернета (McNeal, 2003).

Корделла А. и Темпини Н. рассматривает электронное правительство через цифровую трансформацию, которая бросает вызов технологическому, организационному и культурному мышлению и возможностям организации и отдельных лиц, поскольку правительствам приходится справляться с юридическими, политическими вопросами, связанные с общественной подотчетностью, стремясь цифровизации на национальном уровне (Cordella & Tempini, 2015).

В докладе ООН, Казахстан занимает 8-е место по индексу услуг в онлайн режиме и 28-е место по индексу «развития e-gov». 92 процента государственных услуг в стране доступны в электронном виде; из них 484 — безальтернативные и 724 — альтернативные. Шлюзы электронного правительства и «умные мосты» — это механизмы взаимодействия и обмена данными, которые соединяют основные базы данных и специализированные информационные системы. Вместе эти механизмы обеспечивают эффективность электронного правительства. Портал электронного правительства, системы электронного лицензирования, интеллектуальные данные ukimet, e-otinish и мобильное приложение e-gov — это все предлагаемые услуги. Однако цифровизация деятельности государственных органов часто приводит к потере целостности цифровизации «клиентского пути». Несмотря на значительные успехи в цифровизации государственных услуг, взаимодействие между гражданами, бизнесом и правительством иногда становится сложной задачей. (Концепция цифровой трансформации, развития отрасли информационно-коммуникационных технологий и кибербезопасности на 2023 — 2029 годы, 2023).

В кодексе наиболее эффективных практик международных неправительственных организаций, поддерживающих гражданское участие в процессе принятия решений, граждане должны участвовать как в неформальных структурах, таких как НПО, ассоциации и общественные службы, так и активно участвовать в разработке и утверждении государственных программных документов (Генеральный Секретариат Совета Европы, Кодекс передовой практики гражданского участия, 2008).

Совет Европы определяет третий сектор как добровольные самоуправляющиеся организации или организации, созданные для решения некоммерческих проблем своих учредителей или членов (Комитет министров Совета Европы, Рекомендация CM/Rec(2007)14), 2007).

Таким образом изученные литературы показали, что необходимо вовлечение гражданского общества, в части НПО для принятия управленческих решений в демократическом обществе. Развитое демократическое общество характеризуется инновационными технологиями как цифровые платформы, где общество голосует или обсуждают проекты территориального или республиканского масштаба.

Методы

Данное исследование основано на отечественной и зарубежной практике, а также на различных официальных документах и статистических данных. Для изучения международного опыта и правовых актов, связанных с территориальным развитием, использовался метод контент-анализа. Исследо-

вание основано на анализе предыдущих аналитических отчетов по данной теме, а также на основных государственных документах и правовых актах в этой области.

Результаты

С начала независимости, Казахстан столкнулся с проблемой диспропорции социально-экономического развития регионов. Обширная территория с неравномерной плотностью населения создавала дополнительные сложности в регулировании пространственного управления. Территориальное развитие в развитых странах связано с политикой децентрализации. А уровень децентрализации тесно связан с ролью местного самоуправления в делегировании функций в системе государственного управления. По этой причине значимость местного самоуправления в региональном развитии является основополагающей. Устойчивая стратегия развития регионов должна быть включена в законодательство Республики Казахстан в области государственного управления и местного самоуправления.

В первой Конституции Республики Конго, принятой в 1993 году, Верховный Совет одобряет Закон «О местных представительных и исполнительных органах». Этот закон имеет следующие основные черты: он создает представительные учреждения (маслихаты) на уровне районов, но они не работают в сельских районах. Вместо этого используется термин «собрание представителей граждан поселка, аула (села), аульного (сельского) округа»; понятие «местное самоуправление» не существует, а маслихат, как представительский орган, считается государственным органом и имеет юридическое лицо.

Местное государственное управление и местное самоуправление были признаны с принятием действующей Конституции 30 августа 1995 года (статья 85). (Конституция Республики Казахстан, 1995).

Исполнительные органы образует вертикальную схему власти, где нижестоящие органы подчинены вышестоящим с полным объемом контроля, а местные представительные органы не подчиняются по вертикальной иерархии, но решения вышестоящего маслихата строго обязательны.

Местное самоуправление, согласно Конституции «обеспечивает самостоятельное решение населением вопросов местного значения». При этом, Конституция не разъясняет что подразумевается под обозначением «местного значения».

В 1997 году принимается долгосрочная политика «Казахстан — 2030: Процветание, безопасность и улучшение благосостояния всех казахстанцев». В ней приоритетным направлением реформы закрепляет децентрализацию государственных функций от центра к регионам (Стратегия «Казахстан — 2030», 1997).

Попытки делегирования государственных функций на местном уровне должны были отразиться в законах «О местном государственном управлении» и «О местном самоуправлении», которое долгое время откладывалось, создавая правовой вакуум.

Только в 2001 году принят Закон «О местном государственном управлении в Республике Казахстан», но снова отложен закон о местном самоуправлении. Согласно новому закону «местное государственное управление — деятельность, осуществляемая местными представительными и исполнительными органами в целях проведения государственной политики на соответствующей территории, ее развития в пределах компетенции, определенной законом и другими законодательными актами» (Закон «О местном государственном управлении в Республике Казахстан», 2001).

В конце того же года Указом Президента создана Государственная комиссия по децентрализации государственных функций и межбюджетных отношений. Главной задачей комиссии являлось до 1 апреля 2002 года предоставить Концепцию децентрализаций. Активной частью этой комиссии были представители общественного движения Демократический выбор Казахстана (ДВК), одним из главных лозунгов которого были выборность акимов всех уровней и децентрализация (Указ «О Государственной Комиссии по вопросам децентрализации государственных функций и межбюджетных отношений», 2001).

В дальнейшем состав комиссии поменяли с отставкой всех членов ДВК и Указом Президента переименовали в Государственную комиссию по разграничению полномочий между уровнями государственного управления и совершенствования межбюджетных отношений (Указ «О внесении изменений в Указ Президента РК от 24 октября 2001 г. № 713», 2002). Новой задачей определили разработку Концепции разграничения полномочий между уровнями государственного управления и совершенствования межбюджетных отношений.

Эффективность реализаций реформ местного самоуправления, может быть, не настолько высока из-за дублирования функции представительных органов в норме законов. Так, в принятом от 2015 года Законе РК «Об общественных советах» акиматы области, города республиканского значения, столицы проводят обсуждение проекта и годового отчета об исполнении областного бюджета, бюджета города республиканского значения, столицы на заседании общественного совета (Закон «Об общественных советах», 2015). Состав общественного совета предлагает аким и не представлен широким кругом активного гражданского общества. Их деятельность дублируется маслихатом и размывает ответственность за контроль социально-экономического развития региона.

После проведения внеочередных выборов и смены власти в 2019 году, было положено начало политических реформ, которые должны отвечать новым мировым вызовам. Все это сопровождалось тяжелой ситуацией пандемии COVID-19 и введением строгого локдауна в мире. Режим чрезвычайного положения в стране, которое сопровождалось финансовыми потерями МСБ и неорганизованностью системы здравоохранения, повысил уровень недоверия к власти.

Послание Главы государства народу страны «Казахстан в новой реальности: Время действовать» от 1 сентября 2020 года стало ответом на эти проблемы. В результате был утвержден Общенациональный план действий по реализации Послания (ОПД). Об участии граждан в управлении государством говорится в десятой главе этого документа, которая включает семь мер, закладывающих основу для дальнейшего развития местного самоуправления (Послание Главы государства народу страны «Казахстан в новой реальности: Время действовать», 2020 год). В рамках ОПД были определены следующие задачи:

- утверждение Концепции местного самоуправления (реализовано);
- проведение прямых выборов акимов сел, поселков и сельских округов (реализовано);
- онлайн-трансляция заседаний маслихата и сбор подписи для петиции (исполнен);
- разработка нормативно-правовой базы института онлайн-петиций для инициации реформ и предложений граждан (на рассмотрении в мажилисе).

Для нашей страны 2022 год начался «Январскими событиями». Триггером этих событий является мирные митинги в западных регионах на повышение сжиженного газа. В дальнейшем митинги переросли в протесты, которые привели к трагическим столкновениям с правоохранительными органами уже во всех регионах. Официальной версией данных пришествий государство определило как попытку государственного переворота с целью смены власти. Данные события стали отражением всех недоработок государственного аппарата в взаимодействиях с гражданами страны.

На этом фоне Послание Главы государства «Новый Казахстан: путь обновления и модернизаций» укрепляет продвижение новых реформ в сторону усиления представительных органов власти и усиления роли граждан отраженный в политике: «слышащего государства», «Сильный Президент — влиятельный Парламент — подотчетное Правительство». В речи президента упоминается децентрализация местных органов власти. Основные предложения, которые были одобрены в Послании ОПД, включают:

- расширение полномочий маслихатов по отношению к местной государственной администрации и органам местного самоуправления, а также расширение их полномочий по отношению к населению местного самоуправления;
- введение прямого финансирования органов местного самоуправления и расширение имущественной базы.

Итоги анализа законодательства в сфере местного самоуправления показал, что до 2020-х годов института местного самоуправления планомерно ограничивалось в сторону концентрации власти в руках политической элиты и исполнительной власти, любые передовые идеи отторгались на уровне разработки законодательных проектов. Проведенный Референдум, получивший положительный результат от населения по вопросам усиления роли представительных органов и их полномочий, ознаменовал осознания нашего правительства в необходимости развития политики децентрализации через институты местного самоуправления.

Вместе с тем, для активного вовлечения НПО, к примеру для территориального развития имеются различные механизмы и инструменты, где одним из них является электронное участие.

В рамках вышеуказанного кодекса выработаны четыре постепенных уровня участия или вовлечения НПО от минимальной до максимальной на разные процессы принятия решения такие как: информация, консультация, диалог и партнерство.

Сегодня общественные советы из представителей НПО на местном уровне составляют — **218** (на уровне областей, гг. Астана, Алматы, Шымкент — 20, на уровне городов, районов — 201).

В состав общественных советов всех уровней входят в общей сложности **3915** граждан Казахстана, в том числе в советы при местных представительных органах — **3329**. Это значит, что, для активного вовлечения граждан в процесс принятия решений территориального развития можно через общественные советы и местного сообщества.

В текущем году в рамках внедрения подходов инклюзивного планирования сельских/городских территорий на основе оценки интересов и потребностей местного сообщества уполномоченный орган в сфере развития регионов Республики Казахстан реализуют 2 проекта в рамках грантового финансирования — «Организация комплекса мероприятий, направленных на развитие местного самоуправления» и «Организация комплекса мероприятий, направленных на развитие гражданских инициатив на селе» (Концепция развития местного самоуправления в Республике Казахстан до 2025 года, 2021).

Проект «Организация комплекса мероприятий по развитию местного самоуправления» реализуется с целью вовлечения граждан, общественных организаций, местных органов власти и собраний местных сообществ в развитие местного самоуправления. На сегодняшний день открыты общественные центры в Алматинской, Туркестанской, Кызылординской и Западно-Казахстанской областях. Цель этих центров — помочь развитию местного самоуправления и расширить участие населения в процессе принятия решений. Проект включает в себя обучение социальному проектированию для сельских жителей, НПО, инициативных групп и участников малых грантов. Они также получают консультации от участников конкурса малых грантов, направленные на мобилизацию местного сообщества, а также выявление лидеров в развитии сельских инициатив и повышение их цифровой и финансовой грамотности. Для обеспечения близости к народу, удобства организации обратной связи с населением в ходе встреч работают горячие линии, Whatsapp мессенджеры, онлайн трансляции в социальных сетях и СМИ. С целью повышения оперативности, прозрачности работы и снижения коррупционных рисков в государственных органах действуют безбарьерные фронт-офисы «Открытый Акимат» по принципу Open space пространства, функционирует уголок самообслуживания, где жители могут самостоятельно или с помощью специалистов фронт-офиса получить государственные услуги.

Ниже приведены состав гражданского сектора региональных общественных советов по итогам 2021 года (рисунок 1).



Рисунок 1. Состав гражданского сектора в регионах за 2021 год

Примечание — составлено авторами на основе данных Министерства культуры и информации РК, cut.direct/0lhea.

Обсуждение

Изучая международный опыт, мы проанализировали две страны противоположные по государственному управлению страны — Польша и Китай. Несмотря на разные структуру государственного управления, в этих странах отмечается высоки уровнем вовлечением местного сообщества в принятиях управленческих решений. Польша. Политические реформы в 90-х годах, направленные на развитие автономности местного самоуправления, дали мощный толчок в социально-экономическом развитии и сокращении разрыва между регионами.

С момента получения независимости Польша осуществляла реформы для достижения политической, финансовой, административной и имущественной независимости для местных органов власти. Это сопровождалось с изменениями административно-политической системы страны и повлияло на все сферы общественной жизни.

Административно-территориальное управление Польши состоит из 3-х уровней — воеводства, повяты и гмины. Все 3 уровня административного устройства имеют свою структуру самоуправления и находятся в горизонтальной модели взаимоотношения, в отличии от Казахстанской модели регионального управления, в которой ярко выражены иерархическая вертикаль власти.

Так же немаловажным аспектом децентрализации является права собственности местных органов власти. Общество не чувствует прямой ответственности за государственную собственность и относиться к ней с безразличием, во многом выражается в неэффективном использовании казенного имущества. Местное гражданское общество активно вовлекается в управленческие процессы, если государственное имущество напрямую влияют на улучшение качество жизни на местах.

Автономность регионов и широта их полномочий при принятии решении в развитии региона отражает высокий уровень децентрализации Польской Республики. Развитие института местного самоуправления обусловлено с осуществления реформ на раннем этапе становлении государство и последовательности в реализации со стороны правительства.

Для нашей страны опыт Польши должен быть ориентиром в последовательности реализации реформ. Смелые инициативы в развитии института МСУ осуществляются в значительно сокращенном виде. Это показатель отсутствия доверия центральных государственных органов в квалифицированность и компетентность региональных государственных структур, которые должны трансформироваться в органы МСУ.

Китай. Административно-территориальное деление КНР имеет 3-х уровневую систему: первый уровень — провинции, автономные районы и города центрального подчинения, второй уровень — уездов, третий уровень — волость. На сегодняшний день существует 23 провинций, 5 автономных районов и 4 города.

В системе государственного управления Китайской Народной Республики нет определение органа местного самоуправления. Органами государственной власти на местах выступают собрание народных представителей (СНП) АТЕ и постоянные комитеты в соответствующих собраниях. В компетенцию СНП входят решение как местных, так и государственных целей и задач. Самые низовые уровни СНП избираются гражданами, а вышестоящие звенья представителями нижестоящих собраниях.

Выбор Китайской Народной Республики как пример высокого уровня децентрализации обусловлен альтернативным взглядом развития институтов МСУ. Имея высокий уровень авторитаризма в государственной власти, они добились высоких достижений в децентрализации государственных функции между центральными и региональными структурами власти.

Экспериментальные пилотные проекты по внедрению партисипаторного бюджетирования в КНР начались еще в начале 2000-х годов и показал положительный результат в вовлечении граждан в управленческие функции административно-территориальной единицы. Модели данного механизма в разных регионах отличались по структуре, но цель одна стимулирование участие граждан в принятия управленческих решений развития собственного населенного пункта. С 2009 года по сегодняшний день реализуется пилотный проект по внедрению партисипаторного бюджетирования в городе Чэнду. Данный проект, показывающий положительные отзывы как со стороны населения, так и со стороны правительства может быть действенным инструментом местного самоуправления (Sabannes & Ming, 2014). Ниже представленные этапы процесса бюджетирования модели Чэнду (рис. 2).

Успех имплементаций экспериментального подхода бюджетирования на локальном уровне объясняется бытовой формой рассмотрения проектов «разговоры по душам» (в китайском варианте «kentan»), то есть без излишних формальностей. Материальное стимулирование участников групп по обсуждению бюджета так же играла немаловажную роль (бесплатное питание, транспорт и оплата участие). Освещение со стороны государственных органов через СМИ и официальные каналы коммуникаций повышали статус мероприятия и их участников. Выбранные граждане воспринимали возлагаемые на них задачи в обсуждении проектов, как честь представлять свои общины и коммуны (рис. 2).



Рисунок 2. Китайский опыт вовлечения граждан патисипторному бюджетированию

Примечание — составлен авторами на основе (Галынис & Хонлиан, 2020)

Китайский опыт вовлечение граждан в принятии управленческих решений и контроля их исполнения за счет внедрение партисипаторного бюджета (ПБ) является уникальной. В настоящее время это самый крупный процесс ПБ в Китае по количеству финансируемых проектов, выделяемых средств и охвату населения. Сокращение разрыва между уровнем жизни городского и сельского населения является явной целью этого эксперимента. Интересно, что после первого этапа, когда ПБ ограничивалась сельскими районами, она распространилась на городские и пригородные районы. Однако порядок ПБ в этих регионах был несколько иным (Нельсон, 2019).

С 2019 года в нашей стране стартует проект «Народный бюджет с участием населения», который будет внедряться по всей стране. На сегодняшний день существует две цифровые платформы, основанные на принципе ПБ:

1. Министерство индустрии и иннационального развития РК и Ассоциация урбанистов Q88 выступили инициаторами общенационального проекта «Берекелі бастама» в крупных городах и областных центрах страны;

2. «Tugan qala» — локальные проекты в малых городах и селах (Аксу, Хромтау, Рудный, Качар, Октябрьский), инициирован компанией в сфере добычи и переработке природных ресурсов Eurasian Resources Group.

Процессы реализации проектов указанные на сайте (таблица 1):

Как видно из таблицы 1, бизнес процессы в проекте «Tugan qala» обозначены более чётко. В государственной программе процесс модерации описан без разьяснений о действиях в данной фазе, тогда как в частном проекте после модерации дополнительной фазой указана экспертиза. Данные различия показывают что частный проект более транспарентный в разьяснениях своих процессов (таблица 2).

Далее были изучен соотношение проектов к количеству населения в сравнениях этих двух проектов на разных территориях. Согласно таблице можно отметить, что в целом по вовлеченности граждан в проекты ПБ не вызывает высокий интерес населения. С небольшим преимуществом опережает частная платформа. Но дальше картина становится более интересной при сравнений количества голосов по отдельным проектам (таблица 3).

Таблица 1. Процессы реализаций проектов

«Берекелі бастама» государственный проект	«Tugan qala» частный проект
сбор проектных предложений Проектные предложения собираются для отбора	сбор проектных предложений Проектные предложения собираются в проектном центре
модерация Проектные предложения проверяются и проходят модерацию	модерация Специалисты проектного центра проверяют предложение и свяжутся с авторами
голосование Происходит онлайн-голосование. Жители выбирают понравившиеся проекты и голосуют за них	экспертиза Все проекты проходят экспертизу в Экспертном Совете на соответствие законам и правилам благоустройства
подведение итогов голосования Происходит подсчет голосов. По результатам будет опубликован список победителей и проигравших	голосование Происходит онлайн-голосование. Жители выбирают понравившиеся проекты и голосуют за них
реализация Проекты, получившие наибольшее количество голосов жителей города, будут реализованы.	ожидание результатов Идет подсчет голосов. По результатам будет опубликован список тех, кто выиграл и проиграл.
	реализация Проекты, получившие наибольшее количество голосов жителей города, будут реализованы.

Таблица 2. Расчет численности населения

	x — численность населения*, чел.	y — количество проектов, шт.	$y \cdot 100 \% / x$ соотношение населения к проектам, %	z — максимальное количество голосов на 1 проект, чел.	$z \cdot 100 \% / x$ — соотношение к населению, %
г. Актау государственный проект	142549	53	0,0372	331	0,232
г. Аксу частный проект	51466	22	0,0427	128	0,249

* численность населения указана жителей с возрастом от 16 лет

Примечание – составлено авторами на основе (Статистические данные о численности, 2022)

Таблица 3. Расчет по количеству голосов

	Количество проектов, шт.	Проекты по количеству голосов							
		от 0 до 10		от 11 до 50		от 51 до 100		от 100 и выше	
		шт.	%	шт.	%	шт.	%	шт.	%
г. Актау государственный проект	53	39	73,58	11	20,75	0	0	3	5,66
г. Аксу частный проект	22	1	4,55	3	13,64	11	50	7	31,82

Примечание – составлено авторами на основе (Проектные предложения Берекелі бастама и Tugan qala, 2022)

Как можно увидеть качество проектов в частной платформе намного выше, на что указывает голоса местного населения по отдельным проектам. Тут нужно отметить что государство не справилось с своими функциями в фазе модерации запустив много проектов не вызывающих отклик у граждан. Или отметить существование коррупционных рисков так как только 3 проекта имеют свыше 100 голосов и лоббируется третьими лицами.

Эти данные показывают что государственный проект требует доработки и открытости во всех фазах реализаций на данной платформе.

Экономическое обоснование

Учитывая внедрения новых правил в приказе «О внесении изменений в приказ Министра финансов Республики Казахстан от 31 октября 2014 года № 470 «Об утверждении Правил разработки про-

ектов местных бюджетов» от 11 января 2023 года № 19 Предельная стоимость реализации идеи (проектного предложения) составляет:

- в городах республиканского значения (Астана, Алматы, Шымкент) планируется создать 25 тыс. МРП, что составляет примерно 85 млн. тенге в 2023 году;
- в городах областного значения планируется создать 15 тыс. МРП, что составляет примерно 50 млн. тенге в 2023 году.
- в городах районного значения есть 1500 МРП, что составляет примерно 5 млн. тенге в 2023 году.

Таблица 4 показывает предположительное количество проектов в 2024 году.

Таблица 4. Количество проектов

Вид населенного пункта	Количество населенного пункта	Среднее количество проектов	Общее количество проектов	МРП в 2024 году (3692 тг.) за один проект	Общая сумма млрд. тг.
Города РЗ	3	20	60	25000	5,5
Города ОЗ	38	10	380	15000	20,9
Города РЗ	48	5	240	1500	1,3
ИТОГО			680		27,7

Примечание — составлено авторами на основе (Правила разработки проектов местных бюджетов, 2020)

Если учитывать 3 республиканского, 38 областного и 48 городов районного значения, возможно неэффективное использование 27,7 млрд. тенге, что может повлиять на развитие инфраструктуры как в стране, так и в регионах.

Выводы

Отмечая опыт Польши по децентрализации и вовлеченность гражданского общества в управление территориального развития через вертикальные методы управления принятия решения. Анализируя состав общественных советов при местных исполнительных органах, можно сказать, что в территориальных органах Казахстана НПО и их учредители имеют достаточно ресурсов для более глубокой вовлеченности в данный проект.

Так же опыт Китая в партисипаторном бюджетировании (далее ПБ) в режиме пилотного проекта является положительным примером, так как дает гибкость в управлениях и совершенствовании бизнес-процессов в быстро изменяющемся мире цифровых изменений. В Китае в разных регионах применяется разные модели ПБ и не ограничены законодательными рамками, что помогает постоянно совершенствовать ПБ без громоздких бюрократических проволочек.

Изученные нами данные показывают, что внедрение цифровых платформ дает толчок в повышении вовлеченности граждан в принятия управленческих решений. Общереспубликанский пилотный проект «Берекелі бастама» может стать бенефициаром данных изменений. Но государственные проекты партисипаторного бюджетирования требуют прозрачности процессов и вовлечение более широкого круга представительств гражданского общества.

Качество проектов на государственной платформе уступает по качеству частному проекту. Что в дальнейшем должно привести к более качественному наполнению локальных проектов для развития территорий.

На основе вышеизложенного рекомендации по улучшению данной платформы:

- убрать ограничения по направлениям при сборе предложений и упростить требования пакета документов (эскизы, сметы и т.д.);
- включить обсуждение проектов в фазу модерации с представителями разных социальных групп, представленных через НПО;
- вовлечение НПО и населения при контроле реализаций проектов через цифровую платформу.

Необходимо предпринять более решительные меры в расширении задач предлагаемые гражданским сообществам и их обсуждении в рамках программы «Берекелі бастама».

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Цифрландыру жолымен аумақтық даму шешімдерін қабылдау процесіне азаматтардың тартылуын арттыру

Аңдатпа

Мақсаты: Аумақтық дамудың басқарушылық шешімдерін қабылдауда азаматтық белсенділікті арттыру мақсатында цифрлық форматтағы патисипаторлық бюджеттеуді енгізу.

Зерттеу гипотезасы: цифрлық патисипаторлық бюджеттеу жергілікті басқару және азаматтық сезім институттарының ролін арттырады.

Әдісі: зерттеуде шетелдік тәжірибені және Қазақстан Республикасының жергілікті өзін-өзі басқару қызметін реттейтін нормативтік-құқықтық актілерді зерделеу кезінде контент-талдау әдісі пайдаланылды.

Қорытынды: Талдау қорытындысы бойынша орталықсыздандыру саясаты дамыған елдердің аумақтық дамуына әсер ететіні анықталды. Орталықсыздандыру деңгейі Жергілікті өзін-өзі басқарудың мемлекеттік басқару жүйесі шеңберінде әртүрлі функцияларды бөлуде өз ролін атқаруымен тығыз байланысты және аймақтық даму үшін өте маңызды. Осыған байланысты Қазақстанда «жергілікті өзін-өзі басқаруды дамытуға бағытталған іс-шаралар кешенін ұйымдастыру» жобасы ел өңірлерін біркелкі дамыту үшін азаматтарды, қоғамдық ұйымдарды, жергілікті билік органдары мен жергілікті қоғамдастық жиналыстарын тарту үшін патисипаторлық бюджеттеудің цифрлық платформасын пайдаланады.

Тұжырымдама: Қазіргі уақытта Қазақстан Республикасында мемлекеттік аппарат пен азаматтардың «адамға бағытталған» қағидатына негізделген өзара іс-қимылының жаңа моделін құру процесі жүріп жатыр. Жүргізілген зерттеулер цифрлық платформаларды пайдалану басқару шешімдерін қабылдау процесінде азаматтардың белсенділігін арттыруға ықпал ететінін көрсетеді. Бүкіл республика деңгейінде іске қосылған

«Берекелі Бастама» жобасы патисипаторлық бюджеттеуді дамытудың және жалпы аумақты дамытудың драйвері бола алады.

Кілт сөздер: инновация, мемлекеттік реттеуді цифрландыру, партисипаторлық бюджеттеу, мемлекет пен үкіметтік емес ұйымдардың өзара іс-қимылы, аумақтық даму.

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Increasing the involvement of citizens in the decision-making process of territorial development through digitalization

Abstract

Object: The introduction of participatory budgeting in a digital format in order to increase civic engagement in making managerial decisions on territorial development.

The hypothesis of the study is that digital participatory budgeting increases the role of institutions of local government and civil society.

Methods: The study used the method of content analysis in the study of foreign experience and normative legal acts regulating the activities of local self-government of the Republic of Kazakhstan.

Findings: Based on the results of the analysis, it was revealed that the policy of decentralization affects the territorial development of developed countries. The level of decentralization is closely related to how local governments perform their role in the distribution of various functions within the public administration system and is crucial for regional development. In this regard, the project "Organization of a set of measures aimed at the development of local self-government" in Kazakhstan uses a digital platform of participatory budgeting to involve citizens, public organizations, local authorities and local community meetings for the uniform development of the country's regions.

Conclusions: Currently, the Republic of Kazakhstan is in the process of building a new model of interaction between the state apparatus and citizens based on the principle of "human-centricity". The conducted research shows that the use of digital platforms contributes to an increase in the activity of citizens in the process of making managerial decisions. The Berekeli Bastama project, launched at the level of the entire republic, can become a driver for the development of participatory budgeting and the development of the territory as a whole.

Keywords: innovation, digitalization of state regulation, participatory budgeting, interaction between the state and non-governmental organizations, territorial development.

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Цифровое продвижение казахстанских бизнес-университетов для абитуриентов поколения Z

Аннотация

Цель: заключается в определении оценки эффективности цифровых каналов продвижения образовательных услуг бизнес-университетов для представителей поколения Z.

Методы: При написании статьи использованы методы анализа, синтеза, описания, экспертной оценки, обобщения с применением аналитических web-инструментов similarweb.com, pagespeed.web.dev, wordstat.yandex.ru. Проведен анализ сайтов ведущих бизнес-университетов Казахстана по параметрам производительности, поисковой оптимизации, рекомендациям, специальным возможностям, количества визитов, таргетинга по регионам и странам, демографии аудитории, маркетинговым каналам. Выполнена оценка популярности запросов по названию университетов в евразийском пространстве. Проведена оценка поисковых запросов посетителей сайтов бизнес-университетов.

Результаты: на основе проведенного исследования предложены ключевые и дополнительные каналы для продвижения образовательных услуг казахстанских бизнес-университетов, востребованные зумерами. В условиях конкурентной борьбы концентрация усилий по продвижению образовательных услуг бизнес-университетов фокусируется на значимых и эффективных маркетинговых каналах. Обзор маркетинговых каналов, приводящих на сайты университетов, позволяет сделать выводы о недоиспользовании социальных сетей.

Выводы: концентрация на предложенных цифровых каналах позволит бизнес-университетам акцентировать усилия на востребованных маркетинговых каналах, обеспечить рост уровня конверсии, трансформировать потенциальный целевой рынок с регионального на международный.

Ключевые слова: продвижение бизнес-университетов, поколение Z, цифровой маркетинг, каналы продвижения, Казахстан, сайт, интернет-пользователи.

Введение

Рынок мирового и казахстанского бизнес-образования испытал на себе влияние пандемии и связанных с ней событий, что послужило катализатором огромного числа изменений в структуре предложения, методологиях и технологиях обучения, каналах передачи знаний и отработки навыков. «Абсолютно все участники рынка вынуждены оперативно перестраивать многие процессы, реагировать на меняющиеся запросы со стороны стейкхолдеров: работодателей, предпринимателей, топ-менеджеров. Современный тренд высшего образования диджитализация и смешанное образование. Усилия по цифровизации приводят к созданию нового общества, повышаются эффективность и скорость работы бизнеса за счет автоматизации и других новых технологий. Аксиомой развития общества является повышение уровня человеческого капитала через предоставление возможностей получения высококачественного образования. В первую очередь это касается подрастающего поколения, поколения Z, более восприимчивого к инновациям. Поколение Z ориентировано на высокие технологии, способно быстро оценивать большие объемы информации, черпает информацию на просторах интернета. Именно представители поколения Z становятся активными потребителями образовательных услуг высших учебных заведений.

Доля интернет-пользователей составляет для поколения Z — 85–90 %. Они проводят более 3 часов онлайн. В результате 24 % подростков выходят в онлайн почти постоянно. Рекламу и информацию для молодежи необходимо сдвигать в интернет (Milos, 2017). Активное применение социальных сетей в повседневной жизни является нормой для подростков поколения Z. Такая трансформация в восприятии информации подрастающего поколения и потребителей образовательных услуг требует

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реструктуризации в каналах передачи информации, обеспечения релевантности представляемой информации, налаживания обратной связи.

Современными приоритетными каналами продвижения образовательных услуг стали цифровые каналы продвижения. Интеграция в международное образовательное пространство, изменение в приоритетности коммуникационных каналов, цифровая трансформация приводят к необходимости переосмысления цифрового продвижения образовательных услуг казахстанских бизнес-университетов. Вектор развития казахстанского высшего образования направлен на его массивизацию, использование цифровых технологий, интернационализацию, повышения качества образовательных услуг и научных исследований университетов.

Гипотеза: эффективный выбор цифровых каналов продвижения казахстанских бизнес-университетов для абитуриентов поколения Z возможен на основе критериальных оценок.

Научная новизна заключается в формализации подхода выбора каналов продвижения казахстанских бизнес-университетов для абитуриентов поколения Z на основе критериальных оценок.

«Рост количества иностранных студентов в университетах является показателем привлекательности и качества высшего образования страны». Создание условий и трансформация каналов продвижения казахстанских бизнес-университетов позволит расширить доступ к образовательным программам, обеспечить рост конкурентоспособности отечественных университетов в международной среде. Продвижение бизнес-образования в условиях демографического роста, трансформации ценностей поколения Z, повсеместной цифровизации, приводят к необходимости изменении модели продвижения образовательных услуг в современных условиях.

Для обеспечения высокого уровня осведомленности и конверсии в условиях ограниченности ресурсов учебных заведений, авторами сделаны выводы о необходимости активного продвижения образовательных услуг с использованием приоритетных маркетинговых каналов — социальных сетей, сайта, интернет-рекламы.

Обзор литературы

В Казахстане принята «Концепция развития высшего образования и науки на 2023–2029 годы», целью которой является трансформация системы высшего образования, обеспечение роста качества предоставляемых услуг, увеличение охвата населения высшим образованием. В 2023 году охват населения высшим образованием составил 63 %, к 2029 году планируется обеспечить рост индикатора до 75 %. На рынке Казахстана прослеживается стабильная потребность в кадрах экономического профиля. Популярность профиля, востребованность и престижность специальностей рожают конкуренцию.

На рейтинг повлияли такие показатели, как уровень трудоустройства, стабильность работы, продолжительность поиска вакансии, отставание заработной платы выпускников определенных специальностей от опытных коллег. Цифровые технологии оказали мощное влияние на систему образования. Пандемия COVID-19 еще больше стимулировала применение цифровых технологий в образовании (Haleem et. al, 2022).

Пользователями образовательных услуг университетов становятся представители поколения Z. Согласно Теории поколений, созданной Уильямом Штраусом и Нилом Хоувом, к поколению Z относятся подростки в возрасте с 1997 по 2012 годы. Теория поколений описывает повторяющийся цикл возрастных когорт, называемых «поколениями», с определенными моделями поведения. Поколение Z- активные пользователи средств массовой информации. Они видят материальный и цифровой миры как единое пространство, сочетающее в себе оффлайн и онлайн информацию для обучения, развлечения, работы. Количество социальных сетей поколения Z в США по платформам за 2020–2023 годы растет. Наиболее предпочтительные платформы ТикТок, Фейсбук, Инстаграм, Твиттер. На современном этапе развития 83 % молодежи в возрасте от 18 до 29 лет — активные пользователи социальных сетей (Duggan and Brenner, 2013). Инструменты и технологии цифрового обучения привлекают учащихся и улучшают навыки критического мышления, которые являются основой для развития аналитического мышления.

Цифровой маркетинг превратился в важный инструмент для конкуренции на рынке. Продвижение услуг должно базироваться на анализе макросреды — политических, экономических, социальных, технических факторов. Необходимость последовательного системного реформирования законодательства, регулирующего все аспекты использования цифровых технологий в экономике, для создания более эффективного механизма обеспечения кибербезопасности в информаци-

онном поле страны позволит урегулировать использование инновационных инструментов (Alimov et.al., 2023). Поскольку все непреднамеренно погружаются в цифровую эпоху, ее использование является наиболее эффективным инструментом для охвата потенциальных потребителей (Kannan and Li, 2017). Используя в качестве примера британскую компанию Big Choice Group, исследователь организовал и рассмотрел эти точки соприкосновения в таких областях, как окружающая среда, результаты маркетинга и влияние компании.

Таким образом, разработчики учебных программ и преподаватели в университетах должны будут использовать потенциал передовых цифровых технологий для революционного преобразования образования, чтобы эффективное и действенное образование стало доступным для всех и везде (Varea et.al., 2022). Компании, занимающиеся образовательными технологиями, постоянно пытаются создать новые решения для расширения доступа к образованию для людей, которые не могут получить адекватные условия обучения. Социальные сети как инструмент обучения прошли долгий путь (Haddad and Draxler, 2002). Большое количество преподавателей и студентов используют социальные сети как неотъемлемый элемент общего опыта электронного обучения. В современном динамичном мире это важная площадка для обмена информацией. Помимо возможности передавать информацию в любом месте и в любое время, сайты социальных сетей также являются источником создания сетевых возможностей для организации социальной деятельности и, возможно, новых рабочих мест (Büyükbaykal, 2015). Использование «Директ-мейл» как технологии продвижения образовательные услуги дают образовательной организации возможность охвата широкой целевой аудитории с целью формирования лояльность и приверженность потребителей (включая педагогический коллектив как внутренний потребитель), и, соответственно, стимулировать продажи предлагаемой образовательной услуги (Zhytomyrska et. al, 2022).

Зарубежными исследователями отмечается важность применения цифровых технологий в продвижении образовательных услуг. Эти технологии трансформируются, модернизируются с учетом нужд и потребностей потребителей образовательных услуг. Как демонстрируют труды исследователей, потенциал использования социальных сетей как инструмента обучения и обмена информацией переживает бурный рассвет. В трудах отмечается применение социальных сетей как площадки для обмена информацией, элемента электронного обучения, организации социальной деятельности. Сфера цифрового маркетинга является ключевой в продвижении образовательных услуг для абитуриентов, и почтовые рассылки, в том числе, могут являться частью контент-маркетинга.

Цифровые платформы упростили доступ студентов к академической информации. Поэтому индустрия образования внедрила инструменты для эффективной адаптации бизнеса к потребностям студентов (Fierro et. al., 2017).

Модель бизнес-вуза предполагает постоянное отслеживание соотношения «расходы-выгоды», регулярный мониторинг и бюджетирование (Konymbekov et. al., 2020).

В условиях масштабной трансформации средств передачи информации, использования цифровых платформ, ресурсных ограничений, понимание и использование актуализированных каналов передачи информации имеет первостепенное значение для казахстанских бизнес-университетов и требует переосмысления.

Методы

При подготовке исследования использованы материалы национального рейтинга ведущих гуманитарно-экономических вузов Казахстана за 2022 год. В условиях демографического роста населения Казахстана, принятых программных мер по развитию высшего образования в стране, цифровизации, необходимо определение эффективных инструментов цифрового маркетинга для поколения зуммеров. Используются аналитические web-инструменты similarweb.com, pagespeed.web.dev, wordstat.yandex.ru. При написании статьи использованы методы исследования: анализа, синтеза, описания, экспертной оценки, обобщения. Ключевым источником получения информации о деятельности университета является сайт. Авторами статьи проведен анализ сайтов ведущих бизнес-университетов Казахстана по параметрам производительности, поисковой оптимизации, рекомендациям, специальным возможностям, количества визитов, таргетинга по регионам и странам, демографии аудитории, маркетинговым каналам. Выполнена оценка популярности запросов по названию университетов в евразийском пространстве. Проведена оценка поисковых запросов посетителей сайтов бизнес-университетов. Выделены ключевые и дополнительные маркетинговые каналы продвижения образовательных услуг для подростков поколения Z казахстанских бизнес-университетов.

Результаты

В рамках данного исследования были выбраны ведущие бизнес-университеты Казахстана.

Согласно национальному рейтингу ведущих гуманитарно-экономических вузов Казахстана — 2022 (IQAA Rancing, 2022) в списке значатся: университет КИМЭП, Карагандинский университет Казпотребсоюза, Алматы менеджмент университет, Esil университет, Казахстанско-американский свободный университет. Ведущим средством получения информации и налаживания обратной связи в современных условиях служит сайт учебного заведения. Жесткая конкурентная борьба вузов приводит к необходимости формирования актуализированного, востребованного контента. Рейтинг сайтов ведущих гуманитарно-экономических университетов представлен в таблице 1.

Таблица 1. Результаты рейтинга сайтов ведущих гуманитарно-экономических университетов Республики Казахстан за 2022 год

Наименование	Балл	Сайт
Университет КИМЭП	81,42	https://www.kimep.kz/en/
Алматы менеджмент университет	72,34	https://www.almau.edu.kz/
Университет «Туран»	69,05	https://www.turan-edu.kz/
Карагандинский университет Казпотребсоюза	66,29	https://www.keu.kz/ru/
Академия государственного управления при Президенте Республики Казахстан	64,12	https://www.apa.kz/ru/
Университет КАЗГЮУ имени М.Нарикбаева	62,91	https://kazguu.kz/ru/
Казахский университет международных отношений и мировых языков имени Абылай хана	62,78	https://www.ablaikhan.kz/ru/
Университет «Туран-Астана»	54,54	https://tau-edu.kz/
Университет Алихана Бокейхана (прежнее название — Казахский гуманитарно-юридический инновационный университет)	54,17	https://abu.edu.kz/
Казахстанско-Американский свободный университет	52,92	https://kafu.edu.kz/
Университет Нархоз	52,57	https://narxoz.edu.kz/

Примечание — составлено авторами на основе (IQAA Rancing, 2022)

Формирование рейтинга осуществляется на основании следующих критериев: веб-сайт и его информационное наполнение, обновляемость, дизайн, удобство в навигации, количество посещений, ссылок на сайт, скорость. Значимость индикаторов представлена в таблице 2.

Таблица 2. Критерии для оценки веб-сайтов вузов

Критерий	Баллы
Размеры веб-сайта (определяются количеством веб-страниц)	5
Информационное наполнение (определяется количеством документов, выставленных на сайте)	10
Обновляемость сайта	5
Дизайн и удобство в навигации сайта	12
Представление сайта на государственном, русском, английском и других языках	3
Количество посещений	5
Количество ссылок на сайт	5
Скорость сайта	5

Примечание — составлено авторами на основе (IQAA Rancing, 2022)

Популярность сайта подтверждается количеством посещений. Для подростков поколения Z сайт является ключевой цифровой платформой для получения информации об университете, предлагаемых образовательных программах. Нами проведен компаративный анализ количества визитов на сайты ведущих экономических университетов Казахстана: Университет КИМЭП, Карагандинский университет Казпотребсоюза, Алматы менеджмент университет, Университет «Туран», Академия государственного управления при Президенте Республики Казахстан Университет Нархоз (таблица 3).

Таблица 3. Анализ количества визитов на сайт, в среднем за месяц за 2023 год

Показатель	narxoz.edu.kz	kimep.kz	almau.edu.kz	turan-edu.kz	apa.kz/	keu.kz/
Общее количество визитов за последний месяц	33600	91100	72000	35700	18600	53800
Процент отказов, %	33,65	50,92	45,54	42,36	37,81	52,02
Среднее количество страниц за визит	4,14	3,19	4,66	10,4	1,91	3,88

Примечание — составлено авторами на основе (Similarweb, 2023)

Анализ количества визитов говорит о значительном разбросе и интересе к сайтам казахстанских экономических вузов. Наибольшей популярностью пользуется сайт университета КИМЭП, Алматы менеджмент университет. Процент отказов — средний процент посетителей, которые просматривают только одну страницу, прежде чем покинуть веб-сайт. Этот показатель изменяется в диапазоне от 33,65 % до 50,92 %. Заинтересованные лица предпочитают получить ответы на свои запросы на первой странице. Соответственное для продвижения образовательных услуг университета релевантные новости необходимо размещать именно на первой странице.

Только 3 % заинтересованных лиц осуществляют переход на следующие страницы сайта для получения определенных результатов. Отсутствие важной информации на первой странице приводит к сокращению эффективности вложенных средств (Gunjan et.al., 2012).

Среднее количество посещаемых страниц изменяется в диапазоне от 1,91 до 10,4. Такой размах говорит об интересе к содержанию контента одних вузов и недостаточному интересу к информации на страницах сайтах других вузов.

Далее проведена оценка основных интернет показателей сайта по следующим критериям: производительность, поисковая оптимизация, специальные возможности, рекомендации. Процентное соотношение по индикаторам существенно изменяется. Значение индикатора в диапазоне от 0 до 49 процентов констатирует неэффективную работу сайта по данному параметру, от 50 до 89 о хорошем значении индикатора, от 90 до 100 отличную работу по выбранному индикатору. Оценка основных интернет показателей сайта представлена в таблице 4.

Таблица 4. Оценка основных интернет показателей сайта

Показатель	narhoz.edu.kz	kimep.kz/	almaw.edu.kz	turan-edu.kz	apa.kz/	keu.kz/
Общее количество визитов за последний месяц	33600	91100	72000	35700	18600	53800
Производительность, %	69	71	77	97	49	21
Поисковая оптимизация сайта, %	92	58	82	91	92	82
Специальные возможности, %	78	86	75	87	86	67
Рекомендации, %	75	75	75	100	58	75
<i>Примечание — составлено авторами на основе (Simalarweb, 2023)</i>						

Производительность веб-сайта демонстрирует временные параметры для загрузки веб-сайта или веб-страницы. Веб-производительность — это ключевой индикатор эффективной работы веб-сайтов. Медленные сайты не привлекают пользователей. Это может быть связано с чрезмерным использованием ресурсов или неправильной конфигурацией. Согласно отчету 5WPR о потребительской культуре за 2021 год, поколение Z отдает приоритет электронике и технологиям (Consumer Report, 2021). Соответственно низкая производительность сайта не будет привлекательной для представителей поколения Z, как следствие потенциальные пользователи таких сайтов будут искать информацию на других источниках. Дизайн — еще один фактор, определяющий лояльность клиентов поколения Z: 23 % опрошенных «зумеров» готовы отказаться от бренда из-за плохого дизайна мобильного приложения (Consumer Report, 2021).

По показателю производительности сайта высокую эффективность демонстрирует только один сайт — www.turan-edu.kz, по другим сайтам необходимо проводить работу по улучшению функционирования работы приложений. Другим индикатором оценки работы сайта служит поисковая оптимизация.

Представители поколения Z ищут ответы на свои вопросы в интернете.

Исследование компании Fractl, проведенное в 2020 году, выявило следующее: зумеры, для получения точного ответа на запрос, используют длинные запросы (более 4 слов). Это связано с получением релевантной информации.

Подростки также часто используют голосовых помощников, которые с помощью алгоритмов искусственного интеллекта преобразуют речь в длинный поисковый запрос и выполняют по ним поиск. Long-tail запросы могут обеспечить для бизнес-университетов привлечение целевой аудитории, их продвижение на региональном и международном рынках.

Использование запросов по long-tail ключам позволяет повысить видимость страниц сайта практически без конкуренции и получить много новых конверсий.

Уровень использования специальных возможностей у сайтов ведущих казахстанских бизнес-университетов — средний. Специальные возможности не в полной мере используют навигацию, контрастность, цвет фона и переднего плана, альтернативный текст в тегах.

Общие рекомендации связаны с повышением надежности и безопасности сайтов, выполнением отладок на действующих ресурсах.

Мониторинг таргетинга по регионам и странам представлен в таблице 5.

Таблица 5. Таргетинг по регионам и странам

Страны	narxoz.edu.kz	kimep.kz	almau.edu.kz	turan-edu.kz	apa.kz	keu.kz
Казахстан	78,36	80,88	92,34	97,03	96,75	96,26
РФ	10,66	-	1,03	1,01	-	1,02
Армения	1,48	-	-	-	-	0,6
Узбекистан	1,16	-	0,93	-	-	-
Нидерланды	1,14	2,55	-	0,92	-	0,33
Япония	-	-	-	-	0,43	-
Беларусь	-	-	-	1,03	-	-
Украина	-	-	-	-	-	1,49
США	-	-	2,52	-	-	-
Индия	-	2,66	-	-	-	-
Франция	-	1,79	-	-	-	-
Испания	-	1,71	-	-	-	-
Индонезия	-	-	-	-	1,54	-
Афганистан	-	-	-	-	1,28	-
Другие	7,21	10,4	3,18	-	-	0,3

Примечание — составлено авторами на основе (Simalarweb, 2023)

Анализ таргетинга по регионам и странам демонстрирует запросы на сайты казахстанских вузов в рамках территории Казахстана. Удельный вес запросов на сайты ведущих экономических университетов варьируется от 78,36 % до 97,03 %. Демографический рост подростков поколения Z в регионе это возможность для университетов увеличения контингента студентов.

Казахстан граничит с Россией, Китаем, Киргизией, Узбекистаном, Туркменистаном. При этом интерес к сайтам казахстанских вузов наблюдается со стороны Российской Федерации, к отдельным вузам со стороны Узбекистана. Обучение в университетах Казахстана ведется на казахском, русском, английском языках. Продвижение казахстанских сайтов на рынок образовательных услуг соседствующих стран позволит популяризовать казахстанское бизнес высшее образование. Потенциал роста контингента студентов требует трансформации от бизнес-университетов работы в области цифрового маркетинга и медиапространстве.

Визуальный контент особенно эффективен, и исследования показывают, что 81 % потребителей поколения Z предпочитают использовать Instagram и YouTube.

Объясняющее видео — популярная тактика цифрового маркетинга, основной целью которых является информирование целевой аудитории.

В качестве примера можно привести ролик Университета Конкордия, представленного на канале YouTube. В видеоролике целевой аудитории представлена инструкция по всем услугам, которые могут понадобиться студентам университета, а также как и где их найти (Social media marketing, 2022).

Spelman College использует максимально все возможные функции, которую Instagram может предложить, чтобы создать красиво оформленный аккаунт.

Анализ демографии аудитории посетителей сайтов казахстанских экономических университетов представлен в таблице 6.

Таблица 6. Демография аудитории

Возрастная группа	kimep.kz	almau.edu.kz	turan-edu.kz	apa.kz	keu.kz
18–24	27,76	28,56	23,5	21,47	22,82
25–34	33,99	33,9	34,14	35,84	37,45
35–44	15,68	14,85	16,68	17,74	16,98
45–54	10,68	10,27	12,33	11,92	11,3
55–64	8,19	8,78	9,76	9,69	8,81
65 и выше	3,7	3,64	3,6	3,34	2,64
<i>Примечание — составлено авторами на основе (Simalarweb, 2023)</i>					

Обзор маркетинговых каналов, приводящих на сайты университетов представлен в таблице 7.

Таблица 7. Обзор маркетинговых каналов

Канал	kimep.kz	almau.edu.kz	turan-edu.kz	apa.kz	keu.kz
Прямой	57,8	66,6	40,08	56,85	29,25
Реферальный	0,67	0,0	0,56	0,0	2,03
Поисковый	38,08	33,4	46,76	34,16	51,16
Социальные сети	1,14	0,0	8,02	8,98	6,05
Эл.почта	0,0	0,0	0,00	0,0	11,5
Медийный	2,32	0,0	4,59	0,00	0,0
<i>Примечание — составлено авторами на основе (Simalarweb, 2023)</i>					

Использование прямого маркетингового канала казахстанских бизнес- университетов говорит о высокой известности образовательного учреждения на региональном рынке образовательных услуг.

Отличия наблюдаются в использовании поискового маркетинга, который занимается перераспределением трафика в интернете из мест, менее релевантных запросу в места с большей релевантностью по ним же. К методам поискового маркетинга относятся все методы, решающие эту задачу, начиная от прямого привлечения целевого трафика ссылками из менее релевантных сайту мест, заканчивая работами внутри сайта, обеспечивающих увеличение релевантности сайта для своей целевой аудитории (тем самым увеличивается видимость сайта в поисковых системах за счет переранжирования результатов выдачи в пользу этого сайта по ключевым запросам).

Недоиспользуемым каналом является «Социальные сети», электронная почта. Следует обратить внимание, что социальные сети становятся ведущим каналом коммуникации. Наиболее популярными социальными сетями у молодежи Казахстана являются: Instagram, VK и Youtube (независимо от города). Наиболее популярной среди молодых казахстанцев сетью является сеть «Вконтакте» (71 %).

Причем особо популярна она среди младшей возрастной группы (15–18 лет). На втором месте — Instagram (59 %). Она также популярна больше у школьников и студентов. Facebook не особо популярен у молодежи Казахстана (10 %) (особенно у младшей возрастной группы — 7 %)» (Profit, 2023). Таким образом, можно констатировать, что для поколения Z социальные сети очень популярны. Выбор социальных сетей для продвижения казахстанских бизнес-университетов должен включать «Вконтакте», Instagram.

Исследователи BRIF Research Group также отмечают, что лидирующие позиции занимают социальные сети, мессенджеры, блоги — 60,3 % (BRIF research group, 2023). Университетам необходимо активно использовать именно социальные сети для продвижения образовательных услуг, поскольку для зуммеров это основной канал для получения информации.

Интересный факт раскрывают поисковые запросы посетителей сайтов бизнес-университетов. Целевая аудитория посетителей сайта keu, kz, almu.edu.kz, apa.kz заинтересована в «компьютеры, электроника и технологии > электронная почта и google», kimep.kz в «компьютеры, электроника и технологии > социальные сети и онлайн-сообщества, словари и энциклопедии». Аудитория turan.edu.kz интересуется «искусством и развлечениями > стриминговым и онлайн-телевидением и Google».

Анализ популярности запросов названий ведущих казахстанских университетов представлен в таблице 8. Мониторинг проведен с использованием поисковой системы wordstat.yandex.ru. Регион — Евразия.

Таблица 8. Популярность запросов

Запрос по словам	Показов в месяц		Региональная популярность	
	всего	В т.ч. Казахстан	регион	%
Университет Нархоз	1217	865	Евразия	100 %
КИМЭП	1551	1221	Евразия	100 %
Алматы менеджмент университет	282	212	Евразия	100 %
Университет Туран	1624	1255	Евразия	100 %
Карагандинский университет Казпотребсоюза	420	288	Евразия	100 %
Академия государственного управления при Президенте Республики Казахстан	209	174	Евразия	100 %

Примечание – составлено авторами на основе (Yandex wordstat, 2023)

Статистика популярности запросов различна. В регионе популярностью пользуются запросы Университет Нархоз, КИМЭП, Университет Туран. Недостаточную популярность запросов можно отметить по образовательным учреждениям: Академия государственного управления при Президенте Республики Казахстан, Карагандинский университет Казпотребсоюза, Алматы менеджмент университет.

Обсуждение

Продвижение образовательных услуг современных казахстанских бизнес университетов требует трансформации. Это связано с цифровизацией образовательных процессов, активным использованием цифровых технологий в повседневной жизни. Активными пользователями образовательных услуг университетов становятся представители поколения Z. Основным источником информации для зумеров являются интернет-ресурсы. Ценности поколения Z — это наука, творчество, искусство, технологии. Анализ сайтов говорит о необходимости размещения релевантной информации на первых страницах. Привлечь внимание зумеров могут виртуальные туры по университету. Зумеры готовы делать более длинные запросы для получения четких ответов на свои вопросы. Использование запросов по long-tail ключам позволит повысить видимость страниц сайта университета. Применение прямых трансляций об услугах университета в режиме «вопрос-ответ» позволит привлечь целевую аудиторию. Как показало проведенное исследование, социальные сети — это ключевой источник получения информации. Для казахстанской молодежи это основные популярные сети «ВКонтакте», Instagram, Youtube. Обзор маркетинговых каналов, приводящих на сайты университетов, позволяет сделать выводы о недоиспользовании социальной сети.

Для продвижения образовательных услуг предлагаем выделить ключевые маркетинговые каналы продвижения образовательных услуг для зумеров (рисунок).

Научная новизна заключается в формализации подхода выбора каналов продвижения казахстанских бизнес-университетов для абитуриентов поколения Z на основе критериальных оценок. В условиях конкурентной борьбы концентрация усилий по продвижению образовательных услуг бизнес-университетов фокусируется на значимых и эффективных маркетинговых каналах.

Ресурсы любой организации, в том числе и образовательной, ограничены. Обеспечение высокого уровня конверсии возможно при определении эффективных каналов продвижения услуг. Акцент в современных условиях Казахстана необходимо сделать на социальные сети «ВКонтакте», Instagram, Youtube. Привлечения внимания можно добиться красочными снимками, использованием хештегов, релевантным названием аккаунта, ярким логотипом, использованием геотегов. Трансформация продвижения образовательных услуг позволит привлечь к университету не только казахстанскую молодежь, но и молодых людей из других государств. В условиях демографического роста населения, повсеместной цифровизации, а также принятием программных мер по увеличению числа людей с высшим образованием цифровые каналы продвижения образовательных услуг становятся инструментом, обеспечивающим конкурентоспособность университетов.

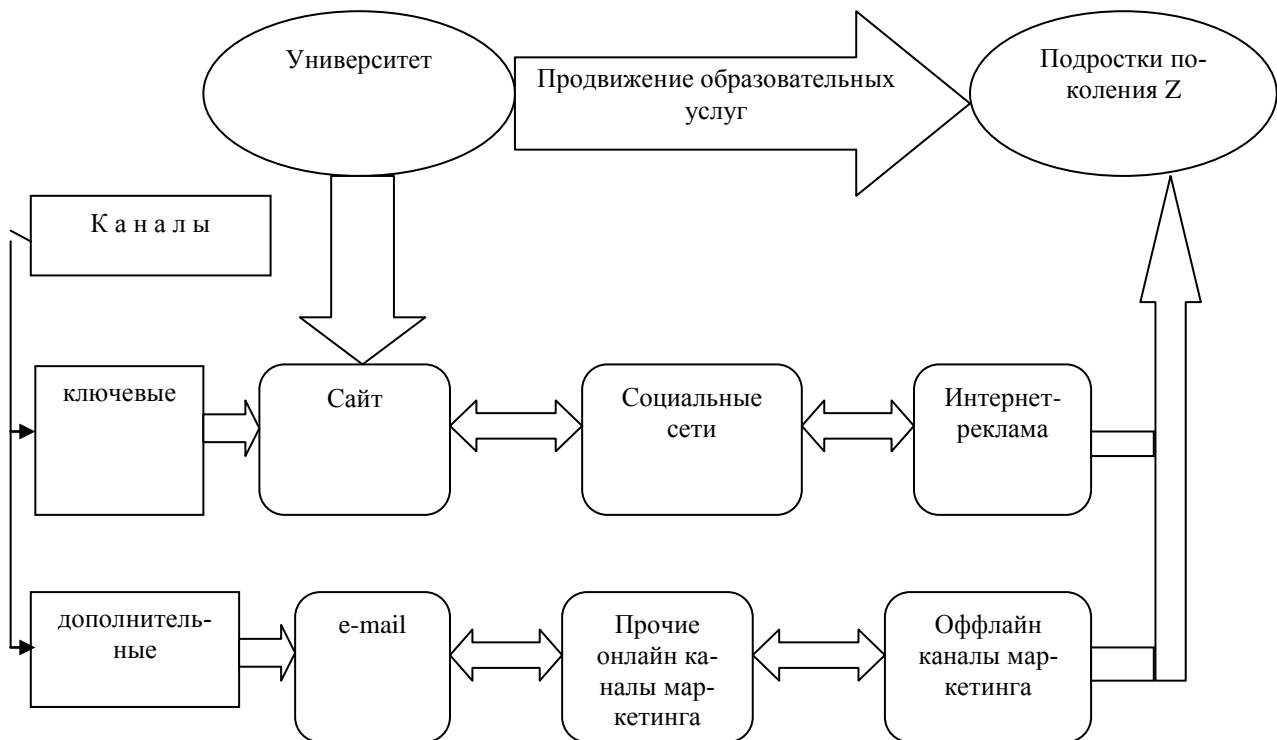


Рисунок. Маркетинговые каналы продвижения образовательных услуг для подростков поколения Z казахстанских бизнес-университетов

Примечание – составлено авторами

Выводы

Авторами статьи исследованы вопросы продвижения казахстанских бизнес-университетов в современных условиях. Цель исследования заключалась в определении оценки эффективности цифровых каналов продвижения образовательных услуг бизнес-университетов для представителей поколения Z. Выдвинутая гипотеза «эффективный выбор цифровых каналов продвижения казахстанских бизнес-университетов для абитуриентов поколения Z возможен на основе критериальных оценок» подтверждена на основании комплексного применения web-инструментов — similarweb.com, pagespeed.web.dev, wordstat.yandex.ru, а также аналитических и описательных методов.

Для оценки продвижения казахстанских бизнес-университетов были выбраны лучшие университеты, на основании ежегодно проводимого рейтинга университетов гуманитарно-экономического профиля. Цифровая трансформация в обществе привела к появлению поколения зуммеров, активных пользователей интернета. Именно представители поколения Z становятся активными потребителями образовательных услуг казахстанских университетов. Пандемия внесла существенные коррективы в формат работы образовательных учреждений. И если, раньше, активно были задействованы оффлайн каналы продвижения, то на текущий момент лидирующие позиции за цифровыми каналами продвижения. На основании проведенного исследования авторами сделаны выводы о необходимости активного продвижения образовательных услуг с использованием социальных сетей, сайта, интернет-рекламы. Анализ работы сайтов позволил констатировать необходимость проведения постоянной работы по его оптимизации по параметрам производительности, оптимизации, использованию специальных возможностей и рекомендаций. Использование искусственного интеллекта и запросов по long-tail ключам может повысить видимость страниц сайта и обеспечить рост конверсий. Авторами выделены ключевые и дополнительные каналы продвижения образовательных услуг для подростков поколения Z казахстанских бизнес-университетов. Обеспечение высокого уровня конверсии в условиях ограничения ресурсов учебных заведений возможно при фокусировании на результативных, востребованных молодежью маркетинговых каналах. Выбор каналов продвижения казахстанских бизнес-университетов для абитуриентов поколения Z осуществлен на основе критериальных оценок. Концентрация на предложенных цифровых каналах позволит бизнес-университетам акцентировать усилия на востребованных маркетинговых каналах, обеспечить рост уровня конверсии и конкурентоспособности на региональном и международном уровне.

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Z буын үміткерлері үшін қазақстандық бизнес университеттерін цифрлық ілгерілету

Аннотация

Мақсаты: Z буын өкілдері үшін бизнес университеттерінің білім беру қызметтерін ілгерілету үшін цифрлық арналардың тиімділігін анықтау.

Әдісі: Мақаланы жазу кезінде ұқсасweb.com, pagespeed.web.dev, wordstat.yandex.ru аналитикалық веб-құралдары арқылы талдау, синтез, сипаттау, сараптамалық бағалау, жалпылау әдістері қолданылды. Қазақстанның жетекші бизнес университеттерінің веб-сайттарына талдау өнімділік параметрлері, іздеу жүйесін оңтайландыру, ұсыныстар, арнайы мүмкіндіктер, кірулер саны, аймақтар мен елдер бойынша таргетинг, аудитория демографиясы және маркетингтік арналар негізінде жүргізілді. Еуразия кеңістігінде университет атауларына сұраныстардың танымалдылығы бағаланды. Бизнес университетінің веб-сайттарына кірушілердің іздеу сұрауларына баға берілді.

Қорытынды: зерттеу негізінде қазақстандық бизнес-университеттердің білім беру қызметтерін ілгерілетудің негізгі және қосымша арналары ұсынылды, олар Zoomers сұранысына ие. Бәсекелестік ортада бизнес-университеттердің білім беру қызметтерін ілгерілету әрекеттері мазмұнды және тиімді маркетингтік арналарға бағытталған. Университет веб-сайттарына апаратын маркетингтік арналарға шолу әлеуметтік желілерді жеткіліксіз пайдалану туралы қорытынды жасауға мүмкіндік береді.

Тұжырымдама: ұсынылған цифрлық арналарға шоғырлану бизнес-университеттерге күш-жігерін танымал маркетингтік арналарға шоғырландыруға, конверсия жылдамдығының жоғарылауын қамтамасыз етуге және әлеуетті мақсатты нарықты аймақтық нарықтан халықаралыққа өзгертуге мүмкіндік береді.

Кілт сөздер: бизнес университеттерін ілгерілету, Z буыны, цифрлық маркетинг, жылжыту арналары, Қазақстан, веб-сайт, интернет пайдаланушылары.

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Digital promotion of Kazakhstan business universities for generation Z applicants

Annotation

Object: to determine the assessment of the effectiveness of digital channels for promoting educational services of business universities for representatives of Generation Z.

Methods: When writing the article, the methods of analysis, synthesis, description, expert assessment, generalization using analytical web tools similarweb.com, pagespeed.web.dev, wordstat.yandex.ru were used. The analysis of the websites of leading business universities of Kazakhstan was carried out by performance parameters, search engine optimization, recommendations, special features, number of visits, targeting by regions and countries, audience demographics, marketing channels. An assessment of the popularity of queries by the name of universities in the Eurasian space was made. An assessment of the search queries of visitors to the websites of business universities was carried out.

Findings: based on the conducted research, key and additional channels for promoting educational services of Kazakhstani business universities, in demand by zoomers, were proposed. In a competitive environment, the concentration of efforts to promote educational services of business universities is focused on significant and effective marketing channels. A review of marketing channels leading to university websites allows us to draw conclusions about the underutilization of social networks.

Conclusions: focusing on the proposed digital channels will allow business universities to focus their efforts on popular marketing channels, ensure an increase in the conversion rate, and transform the potential target market from regional to international.

Keywords: promotion of business universities, generation Z, digital marketing, promotion channels, Kazakhstan, website, internet users.

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Роль государственного управления в оптимизации взаимосвязи городского транспортного комплекса и логистических услуг

Аннотация

Цель: Основной целью исследования является анализ взаимосвязи между городским транспортным комплексом и логистическими услугами в Республике Казахстан необходимый для выявления ключевых факторов, влияющих на их эффективность и взаимодействие, а также разработка рекомендаций для оптимизации и улучшения интеграции этих двух компонентов в системе городской инфраструктуры.

Объект: Исследование освещает роль госуправления в оптимизации взаимосвязи между городским транспортным комплексом и логистическими услугами. Этот аспект исследования позволяет более глубоко понять механизмы воздействия государственной политики на функционирование и развитие транспортной и логистической инфраструктуры в городах, необходимые для разработки практических рекомендаций и улучшения взаимодействия между городским транспортом и логистическими услугами на основе анализа роли госуправления.

Результаты: В рамках исследования проведен анализ текущего состояния транспортных и логистических систем, выделены основные проблемы и потенциальные возможности для создания более эффективной, устойчивой и согласованной инфраструктуры, способствующей улучшению качества жизни граждан и развитию экономики региона.

Выводы: Улучшение взаимосвязи между городским транспортным комплексом и логистическими услугами в Республике Казахстан является важным шагом к устойчивому развитию страны, созданию благоприятных условий для её граждан и обеспечению экономического роста. Автором был сделан прогноз на 2023–2025 годы, с помощью корреляционно-регрессионного анализа, который свидетельствует что необходимо пересмотреть политику в отношении системы госуправления городским автотранспортом, а также разработать рекомендации по совершенствованию управления городской логистикой.

Ключевые слова: городской транспортный комплекс, устойчивое развитие, логистические системы, логистические услуги, инфраструктура, экономический рост, система, качество.

Введение

Исследование роли госуправления в оптимизации взаимосвязи городского транспортного комплекса и логистических услуг является крайне актуальным в современных условиях. С увеличением числа городского населения и развитием экономики возрастает потребность в эффективной транспортной инфраструктуре и логистических услугах. Государственное управление играет ключевую роль в создании благоприятных условий для развития транспортного сектора и оптимизации логистических процессов. Это важно как для повышения конкурентоспособности страны в мировой экономике, так и для обеспечения комфортной жизни граждан и эффективного функционирования бизнеса. Исследование этой проблематики позволяет выявить проблемы в управлении транспортным комплексом и логистическими услугами, а также предложить рекомендации для их улучшения, что делает данное исследование важным и актуальным.

В условиях динамичного экономического роста и увеличения городского населения в РК, эффективность и устойчивость городского транспортного комплекса (ГТК) и логистических услуг становятся ключевыми для обеспечения комфортной и безопасной жизни граждан и успешного функционирования экономических систем. Существует прямая взаимосвязь между эффективностью ГТК и качеством предоставляемых логистических услуг в Республике Казахстан. Предполагается, что улучшение инфраструктуры ГТК и внедрение инновационных решений в транспортной логистике приведут к повышению эффективности логистических услуг, что, в свою очередь, положительно скажется на экономическом развитии регионов и качестве жизни граждан. Стратегическое взаимодействие между ГТК и логистическими услугами становится все более актуальным в контексте ускоренного развития городов и повышения спроса на логистические операции в Казахстане. Однако, для

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более эффективного взаимодействия ГТК и логистических услуг необходимо решить ряд инфраструктурных проблем и разработать стратегии устойчивого развития городов, учитывая их влияние на экологию и общественное благополучие.

Обзор литературы

Города являются центрами потребления, которые зависят от передвижения людей, транспорта и товаров. Качество жизни в городах во многом зависит от того, насколько хорошо городские власти управляют этой логистикой и принимают решения о реализации стратегических мер по эффективному госуправлению (Silva, V.; Amaral, A., Fontes, T., 2023). Имеющуюся литературу по городской логистике можно разделить на два основных направления: моделирование подходов к управлению городским транспортом и контекст принятия решений городскими властями. Городские власти стремятся улучшить качество жизни и способствовать устойчивому городскому развитию с помощью различных мер, охватывающих различные элементы, такие как городская логистика, нормативно-правовая готовность, планирование местоположения для логистики, логистические операции, будущие перспективы, финансовые соображения и взаимодействие с заинтересованными сторонами (Lan, S., Tseng, M., Yang, C., Huisingh, D., 2020), (Kijewska, K., 2019). Реализацию инициатив в области устойчивого развития можно рассматривать как инновационный подход к преодолению этих вызовов и повышению эффективности управления городской логистикой для городских властей. Целью инициатив в области устойчивого развития является смягчение негативного воздействия городской логистики и повышение качества жизни (Behrends, S., 2016). Многие исследователи отмечают тот факт, что законы, регулирующие городскую логистику, и нормативные акты, касающиеся городских грузовых перевозок, как правило, устарели. Ограничительные стандарты, касающиеся грузоподъемности транспортных средств и времени въезда в конкретную городскую зону, действуют уже более 20 лет и не меняются, несмотря на глобальное развитие городских логистических систем. Кроме того, нормативные акты в основном не унифицированы и могут противоречить друг другу между учреждениями (Alnsour J, Arabeyyat AR, Al-Hyari K, Al-Bazaiyah SAI, Aldweik R., 2024). Существует значительное количество литературы, которая говорит о том, что при планировании городов, управлении инфраструктурой и формировании демографической политики важно учитывать устойчивое развитие городской логистики (Rodrigue, J., Dablanc, L., Giuliano, G., 2017). Ответственность за предоставление логистических услуг лежит как на государственном, так и на частном секторах. Однако, когда заинтересованные стороны, такие как грузоперевозчики и грузоотправители, не участвуют в процессе городского планирования, это приводит к ограничению логистических услуг (Tadić, S., Zečević, S., 2016), (Holguín-Veras, J., Amaya Leal, J., Sánchez-Díaz, I., Browne, M., Wojtowicz, J., 2018) и неэффективному принятию решений (Dablanc, L., 2007). Таким образом, необходим эффективный механизм госуправления регулирующий взаимосвязь ГТК и логистических услуг.

Методы и материалы

Методы исследования, включающие статистическую обработку экономических данных, а также математическое моделирование и прогнозирование, являются эффективными инструментами для анализа и выявления прогнозных значений динамики перевозок пассажиров автобусами в Карагандинской области. Обоснование выбора этих методов включает следующие аспекты:

- статистические методы обработки данных, позволяющие изучить имеющиеся данные о перевозках пассажиров автобусами, выявить закономерности, тренды и особенности их изменения;
- математическое моделирование и прогнозирование — путем построения математических моделей, основанных на изученных статистических данных и предположениях о факторах, влияющих на перевозки пассажиров, можно получить количественные оценки и прогнозы объемов перевозок в будущем, давая возможность предсказывать спрос на услуги автобусного транспорта и оптимизировать его обслуживание.

Результаты и их обсуждение

В условиях интеграции и экономического взаимодействия стран Евразийского экономического союза (ЕАЭС), анализ взаимосвязи ГТК и логистических услуг становится важным аспектом обеспечения эффективности торговли, свободного перемещения товаров и стимулирования экономического роста в регионе. На фоне стремительных изменений в структуре городов и динамичного развития логистических процессов, анализ данной взаимосвязи среди стран ЕАЭС приобретает актуальность и стратегическое значение. Одним из ключевых аспектов взаимосвязи является согласованность ин-

фраструктуры городского транспорта с требованиями логистических систем. Эффективность грузоперевозок и обеспечение бесперебойного движения товаров требуют согласованных усилий по модернизации и развитию городских транспортных сетей, а также оптимизации логистических путей внутри страны и между странами-членами ЕАЭС. Важно учитывать особенности логистической инфраструктуры в странах-участниках ЕАЭС. Различия в размере территорий, климатических условиях и транспортной инфраструктуре могут влиять на необходимость адаптации логистических процессов под особенности каждой страны, сохраняя при этом общую логическую целостность в рамках союза.

Взаимосвязь городского автобусного транспорта с особенностями логистической инфраструктуры и ГТК в странах-участниках ЕАЭС представляет собой важный аспект для обеспечения эффективной мобильности граждан и оптимизации транспортных потоков в городах (рис. 1).

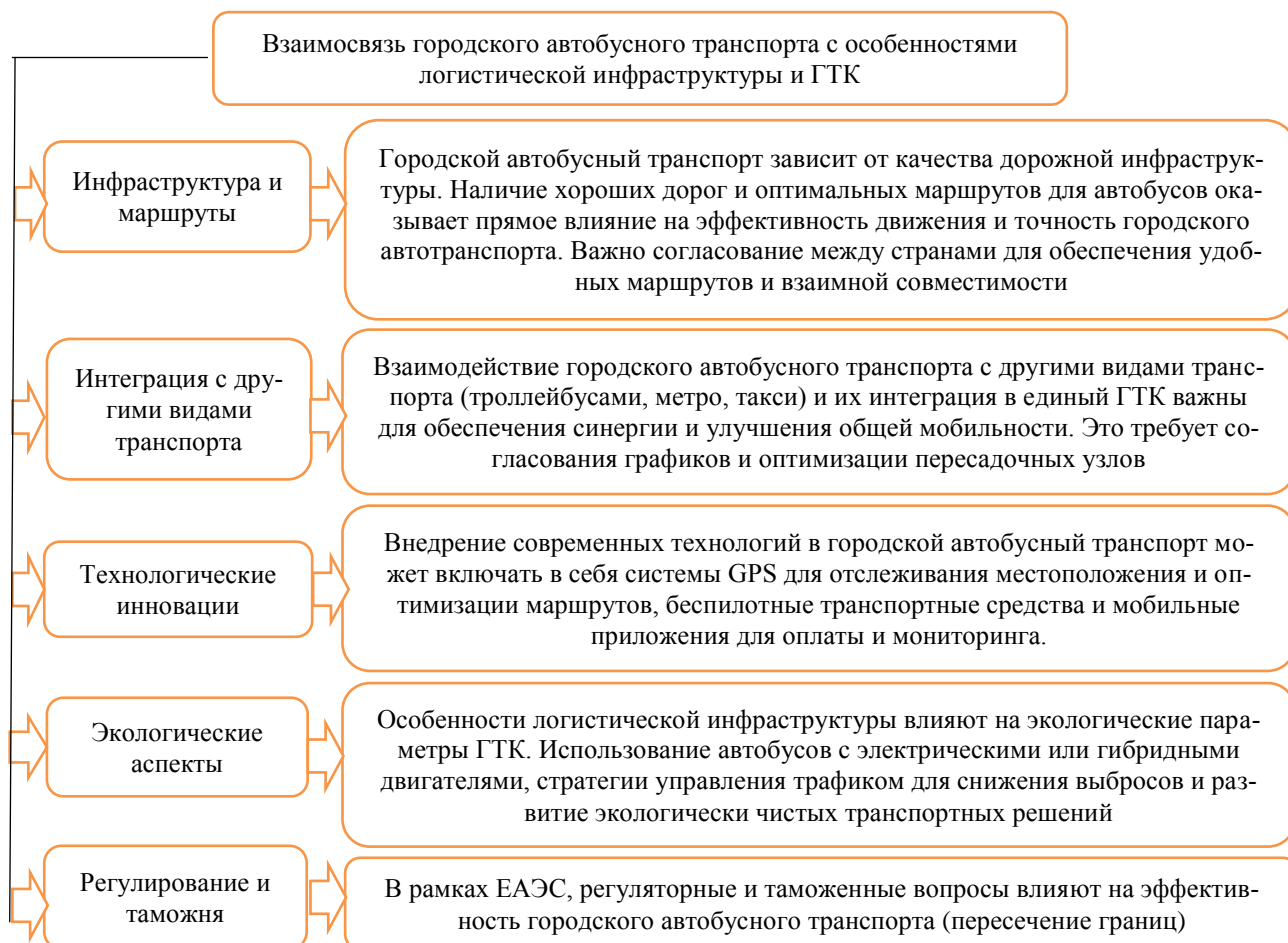


Рисунок 1. Взаимосвязь городского автобусного транспорта с особенностями логистической инфраструктуры и ГТК

Примечание – составлен авторами

В итоге, взаимосвязь городского автобусного транспорта, логистической инфраструктуры и ГТК в странах-участниках ЕАЭС представляет собой сложный механизм, который требует координации усилий между государствами для обеспечения эффективности и удобства транспортных систем в регионе. Автором был проведен сравнительный анализ автомобильного транспорта, а также представлены данные пассажирооборота автобусного транспорта (табл. 1, 2).

Таблица 1. Перевозки грузов автомобильным транспортом, млн.тонн

Страны	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	2	3	4	5	6	7	8	9	10	11
ЕАЭС	8 767,4	8 429,9	8 540,2	8 965,5	9 192,6	9 488,7	8 881,3	8 997,8
в том числе:										
Армения	4,4	6,9	16,2	23,6	24,5	9,7	9,7	12,1	13,5	13,3

Продолжение таблицы 1.

1	2	3	4	5	6	7	8	9	10	11
Беларусь	191,7	180,0	175,3	166,7	170,9	161,7	159,8	154,8
Казахстан	3 127,4	3 174,3	3 181,1	3 300,8	3 422,3	3 550,3	3 288,7	3 314,2	...	262,1
Кыргызстан	27,2	28,2	29,3	29,8	30,5	31,7	24,5	26,2	35,9	37,1
Россия	5 416,7	5 040,6	5 138,2	5 444,6	5 544,4	5 735,3	5 398,6	5 490,5	...	5 771,4

Примечание – Составлена авторами на основе источника (Перевозки пассажиров по видам транспорта среди стран ЕАЭС [Электронный ресурс]. — Режим доступа: <https://eec.eaeunion.org/>)

Таблица 2. Пассажирооборот автобусного транспорта млн.пкм

Год	ЕАЭС в том числе:	Армения	Беларусь	Казахстан	Кыргызстан	Россия
2014	356192,7	2 535,6	9 946,0	214853,1	8 471,4	120 386,6
2015	359898,2	2 395,9	9 889,3	220869,0	8 910,0	117 834,0
2016	373625,8	2 436,5	9 825,4	235348,1	9 385,2	116 630,6
2017	378497,0	2 403,4	10405,5	239973,6	9 500,1	116 214,4
2018	383993,7	2 227,5	10650,8	246349,5	9 948,0	114 817,9
2019	397884,4	2 349,8	10881,8	260051,5	11242,2	113 359,1
2020	153159,1	685,2	8 264,6	58033,4	5 795,4	80 380,5
2021	148401,7	1 050,2	7 942,0	44549,2	7 066,6	87 793,7
2022	...	1609,7	8217,0	87 799,6
2023	...	1 836,9	...	27385,5	8 116,9	85 600,1

В РК – данные представлены с учетом оценки объемов перевозок индивидуальными предпринимателями, занимающимися коммерческими перевозками

Примечание – Составлена авторами на основе источника (Перевозки пассажиров по видам транспорта среди стран ЕАЭС [Электронный ресурс]. — Режим доступа: <https://eec.eaeunion.org/>)

Показатели развития пассажирооборота автобусного транспорта среди стран ЕАЭС можно увидеть графически в динамике, где наибольший поток пассажиров наблюдается в Казахстане и России (рис.2.).

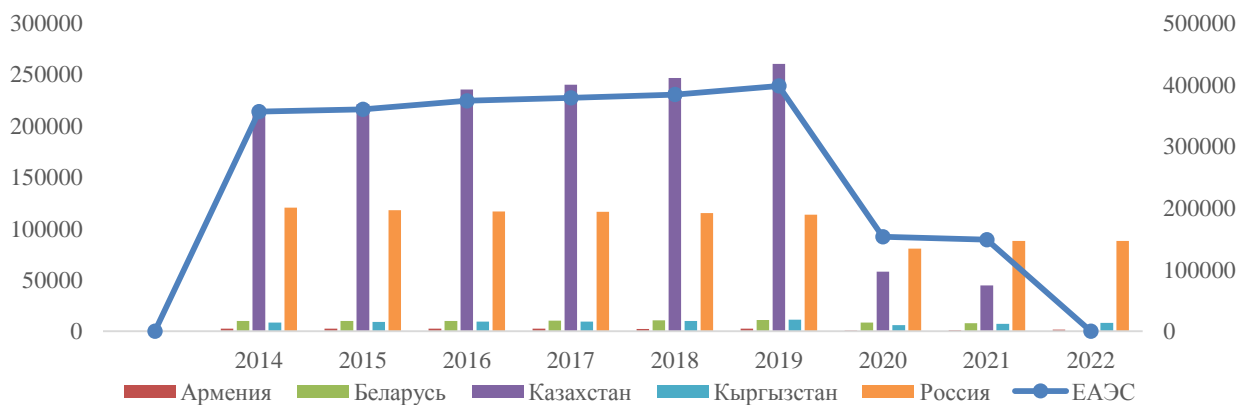


Рисунок 2. Пассажирооборот автобусного транспорта, млн.пкм

Примечание – Составлена авторами на основе источника (Перевозки пассажиров по видам транспорта среди стран ЕАЭС [Электронный ресурс]. — Режим доступа: <https://eec.eaeunion.org/>)

Несмотря на сравнительно хороший пассажирооборот автобусного транспорта в РК по сравнению с другими странами ЕАЭС в последние годы наблюдается резкий спад этого показателя. Это может быть вызвано различными факторами, такими как:

- внедрение новых форм транспорта, таких как каршеринг, велопрокат, электросамокаты и другие, может изменить предпочтения пассажиров в пользу более гибких и индивидуальных вариантов передвижения, что может снизить использование общественного транспорта;
- инновации в технологиях, такие как мобильные приложения для заказа такси или мониторинга графика общественного транспорта, могут предоставить альтернативные варианты для пассажиров, что может повлиять на использование автобусов;

- недостаточное качество обслуживания, например, задержки, непостоянные расписания, низкая чистота транспорта, может привести к потере интереса у пассажиров к использованию автобусного транспорта.

Такая же динамика прослеживается и в Карагандинской области, где перевозки пассажиров автобусами имеют тенденцию спада (рис. 3).

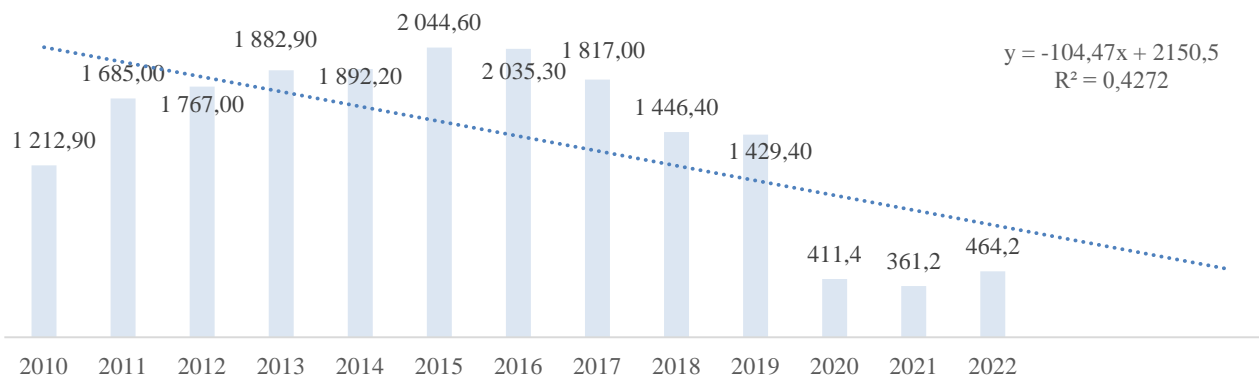


Рисунок 3. Динамика перевозок пассажиров автобусами в Карагандинской области, млн.

Примечание – Составлен авторами по данным (Бюро национальной статистики по стратегическому планированию и реформам РК за 2010–2022гг. //www.stat.gov.kz)

С учетом того, что рассматриваемый показатель имеет тенденцию спада, автором был сделан прогноз на 2023–2025 годы, с помощью корреляционно-регрессионного анализа, который свидетельствует что необходимо пересмотреть политику в отношении системы госуправления городским авто-транспортом (рис. 4).

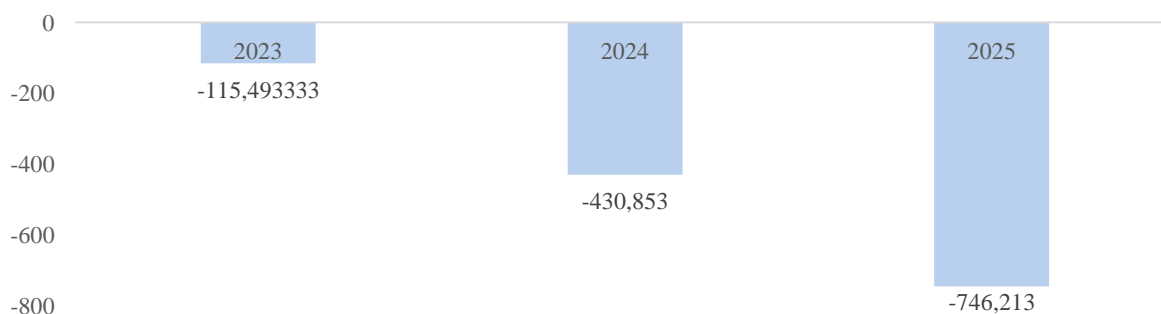


Рисунок 4. Прогнозные значения перевозок пассажиров автобусами в Карагандинской области, млн.

Примечание – Составлен авторами

Результаты исследования показывают, что на эффективность работы городских властей по управлению городской логистикой влияют различные факторы, в том числе неэффективность регулирования, неоптимальная работа человеческих ресурсов, недостатки в информационных системах и проблемы, связанные с координацией между заинтересованными сторонами. В связи с этим были сформулированы практические рекомендации по совершенствованию управления городской логистикой, которые включают в себя:

- внесение изменений в существующие нормативные акты;
- внедрение комплексных программ обучения сотрудников;
- укрепление инфраструктуры информационных систем и развитие надежных каналов коммуникации между городскими властями и заинтересованными сторонами.

Результаты выводов произведенных расчетов представлены следующим образом (рис. 5).

ВЫВОД ИТОГОВ			
<i>Регрессионная статистика</i>			
Множественный R	0,971787		
R-квадрат	0,944369		
Нормированный R-квадрат	0,936422		

Стандартная ошибка	224,0882							
Наблюдения	9							
Дисперсионный анализ								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Значимость F</i>			
Регрессия	1	5967116	5967116	118,8301	1,21E-05			
Остаток	7	351508,6	50215,51					
Итого	8	6318624						
	<i>Коэф фициенты</i>	<i>Стандар тная ошибка</i>	<i>t- статис тика</i>	<i>P- Значение</i>	<i>Нижние 95 %</i>	<i>Верхние 95 %</i>	<i>Нижние 95,0 %</i>	<i>Верхние 95,0 %</i>
Y-пересе чение	637857,8	58466,89	10,90973	1,2E-05	499605,6	776110	499605,6	776110
Перемен ная X 1	-315,36	28,92966	-10,9009	1,21E-05	-383,768	-246,952	-383,768	-246,952

Рисунок 5. Результаты выводов произведенных расчетов

Примечание – Составлен автором

Для решения проблемы снижения пассажирооборота автобусного транспорта в РК, необходим комплексный подход, включающий в себя:

1) улучшение качества обслуживания — внедрение программ по повышению качества обслуживания пассажиров, включая обучение водителей и персонала, сфокусированные на вежливости, профессионализме и предоставлении комфортных условий для пассажиров;

2) модернизацию транспортной инфраструктуры — проведение работ по модернизации автобусных маршрутов и остановок, включая оптимизацию маршрутных сетей, создание удобных пунктов трансфера и обновление технического состояния транспортных средств;

3) внедрение инноваций в сфере общественного транспорта — использование инновационных технологий, таких как системы электронных билетов, мониторинга движения автобусов в реальном времени и развитие мобильных приложений для улучшения управления и информирования пассажиров;

4) проведение информационных кампаний для привлечения внимания и повышения удовлетворенности пассажиров, в том числе рассказ о преимуществах использования автобусов в сравнении с другими видами транспорта, такими как личные автомобили или такси;

5) тарифная политика — рассмотрение вариантов корректировки тарифной политики, например, введение льгот для определенных категорий пассажиров, внедрение бонусных программ или сезонных скидок для стимулирования использования общественного транспорта;

6) экологические и социальные программы — поддержка экологических и социальных программ, например, акцентирование внимания на экологичности общественного транспорта и его вкладе в снижение транспортных выбросов, а также создание программ поддержки для менее обеспеченных групп населения;

7) сотрудничество с частным сектором — развитие партнерских отношений с частными перевозчиками для оптимизации маршрутов, внедрения современных технологий и улучшения обслуживания пассажиров.

Только интегрированный подход, охватывающий указанные меры, может обеспечить повышение привлекательности общественного транспорта, увеличение его популярности среди населения.

Заключение

Взаимосвязь ГТК и логистических услуг в РК представляет собой важный аспект устойчивого развития страны. Эффективное взаимодействие между этими секторами инфраструктуры способствует улучшению качества жизни граждан, стимулирует экономический рост и создает благоприятные условия для инвестиций. Решение вызовов и оптимизация взаимодействия между ГТК и логистическими услугами требуют комплексного подхода, инновационных решений и активного сотрудничества государства, бизнеса и общества, а также необходим эффективный механизм государственного регулирования регулирующей взаимосвязь ГТК и логистических услуг, который обосновывается такими важными аспектами, как:

- ГТК и логистические услуги представляют собой сложные системы с множеством участников, включая госорганы, предприятия транспорта, логистические компании и граждан. Эффективная координация между этими участниками необходима для обеспечения согласованного функционирования

ния и достижения общих целей, таких как повышение эффективности транспортной системы и оптимизация логистических процессов;

- различные участники в сферах ГТК и логистики могут иметь разные интересы, что может привести к конфликтам. Государственный механизм управления способен выступить в роли посредника и регулировать конфликты интересов, направляя усилия на сбалансированное и взаимовыгодное развитие;

- ГТК и логистические услуги взаимодействуют с социальной и экономической средой. Государственное управление необходимо для обеспечения безопасности транспортных систем, соблюдения нормативов, а также предотвращения чрезвычайных ситуаций, которые могут повлиять на устойчивость и надежность логистических услуг;

- госрегулирование может способствовать стимулированию инноваций в сфере транспорта и логистики, включая в себя финансовую поддержку для внедрения новых технологий, разработку экологически чистых транспортных средств и создание условий для устойчивого развития отрасли;

- госуправление позволяет оптимизировать использование инфраструктуры и ресурсов в сферах ГТК и логистики, включая в себя планирование транспортных потоков, создание инфраструктурных проектов и обеспечение рационального использования природных ресурсов;

- государственный механизм управления способен обеспечивать соблюдение стандартов и законодательства в области ГТК и логистики. Это важно для создания прозрачной и законной среды, которая способствует развитию бизнеса и обеспечивает защиту интересов граждан.

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Қалалық көлік кешені мен логистикалық қызметтердің өзара байланысын оңтайландырудағы Мемлекеттік басқарудың рөлі

Аннотация

Мақсаты: зерттеудің негізгі мақсаты олардың тиімділігі мен өзара іс-қимылына әсер ететін негізгі факторларды анықтау үшін қажетті Қазақстан Республикасындағы қалалық көлік кешені мен логистикалық

қызметтер арасындағы өзара байланысты талдау, сондай-ақ осы екі компоненттің қалалық инфрақұрылым жүйесінде интеграциясын оңтайландыру және жақсарту үшін ұсынымдар әзірлеу болып табылады.

Өзіндік ерекшелігі: зерттеу қалалық көлік кешені мен логистикалық қызметтер арасындағы байланысты оңтайландырудағы Мемлекеттік басқарудың рөлін көрсетеді. Зерттеудің бұл аспектісі мемлекеттік саясаттың қалалардағы көлік және логистикалық инфрақұрылымның жұмыс істеуі мен дамуына әсер ету механизмдерін тереңірек түсінуге мүмкіндік береді, бұл мемлекеттік басқарудың рөлін талдау негізінде қалалық көлік пен логистикалық қызметтер арасындағы өзара әрекеттесуді жақсарту және тәжірибелік ұсыныстарды әзірлеу үшін қажет.

Нәтижелері: зерттеу шеңберінде Көлік және логистикалық жүйелердің ағымдағы жай-күйіне талдау жүргізілді, азаматтардың өмір сүру сапасын жақсартуға және өңір экономикасын дамытуға ықпал ететін неғұрлым тиімді, орнықты және келісілген инфрақұрылымды құру үшін негізгі проблемалар мен әлеуетті мүмкіндіктер бөлінді.

Қорытындылар: Қазақстан Республикасында қалалық көлік кешені мен логистикалық қызметтер арасындағы өзара байланысты жақсарту елдің орнықты дамуына, оның азаматтары үшін қолайлы жағдайлар жасауға және экономикалық өсуді қамтамасыз етуге маңызды қадам болып табылады. Автор корреляциялық-регрессиялық талдау көмегімен 2023–2025 жылдарға болжам жасады, бұл қалалық автокөлікті мемлекеттік басқару жүйесіне қатысты саясатты қайта қарау, сондай-ақ қалалық логистиканы басқаруды жетілдіру бойынша ұсыныстар әзірлеу қажет екенін көрсетеді.

Түйінді сөздер: қалалық көлік кешені, тұрақты даму, логистикалық жүйелер, логистикалық қызметтер, инфрақұрылым, экономикалық өсу, жүйе, сапа

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Role of public administration in optimization of interrelation of urban transport complex and logistics services

Abstract

Purpose: The main objective of the study is to analyze the relationship between urban transport and logistics services in the Republic of Kazakhstan in order to identify key factors affecting their efficiency and interaction, and to develop recommendations for optimizing and improving the integration of these two components in the urban infrastructure system.

Originality: The study highlights the role of public administration in optimizing the relationship between urban transport and logistics services. This aspect of the study provides a deeper understanding of the mechanisms of the impact of public policies on the operation and development of transport and logistics infrastructure in cities, necessary to develop practical recommendations and improve the interaction between urban transport and logistics services by analyzing the role of public administration.

Results: The study analyzed the current state of transport and logistics systems, highlighted the main problems and potential opportunities for the creation of a more efficient, sustainable and coordinated infrastructure, contributing to the improvement of the quality of life of citizens and the development of the economy of the region.

Conclusions: Improving the relationship between urban transport complex and logistics services in the Republic of Kazakhstan is an important step towards sustainable development of the country, creating favorable conditions for its citizens and ensuring economic growth. The author made a forecast for 2023–2025, using correlation and regression analysis, which shows that it is necessary to revise the policy regarding the system of state management of urban transportation, as well as to develop recommendations to improve the management of urban logistics.

Keywords: urban transport complex, sustainable development, logistics systems, logistics services, infrastructure, economic growth, system, quality

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Технологический прогресс и его влияние на рынок труда

Аннотация

Цель: Цель данного исследования — проанализировать влияние технологического развития на рынок труда, выявить основные тенденции и последствия, а также разработать рекомендации, которые помогут работникам и работодателям адаптироваться к изменениям, вызванным новыми технологиями.

Методы: Методология исследования включает методы системного и институционального анализа. Для проведения исследования использовались наборы данных, содержащие информацию об инвестициях в новые технологии, уровне безработицы и других переменных, связанных с этой группой. Определение наличия связи между инвестициями в цифровизацию и уровнем безработицы корреляционный и регрессионный анализ были использованы.

Результаты: Технологический прогресс требует от сотрудников новых навыков и знаний. Спрос на специалистов в области ИТ, анализа данных и цифрового маркетинга растет, а традиционные профессии теряют актуальность. Таким образом, окончательное исследование может стать важным инструментом для организаций, стремящихся не только к технологическому обновлению, но и к созданию более справедливых и продуктивных рабочих мест.

Выводы: Технологический прогресс оказывает значительное влияние на рынок труда, создавая новые возможности и проблемы. Работодатели и работники должны адаптироваться к изменениям, чтобы оставаться конкурентоспособными. Необходимы меры по повышению квалификации работников, поддержанию их адаптации к новым условиям и созданию программ переподготовки для тех, кто потерял работу из-за автоматизации.

Ключевые слова: технологии, цифровизация, рынок труда, инвестиции, прогресс, искусственный интеллект, ИТ.

Введение

В современном обществе, поглощенном стремительным напором цифровизации, не осталось ни одной сферы жизни и экономики, которую бы не затронули новейшие технологии. Эта всепроникающая цифровая трансформация оказала глубокое влияние на рынок труда, став ключевым фактором изменений.

Воздействие цифровых технологий на трудовые отношения и занятость далеко не ограничивается простым внедрением новых инструментов; оно затрагивает как индивидуальных работников, так и общую структуру рынка труда. Введение таких прорывных технологий, как искусственный интеллект и автоматизация, трансформирует требования к квалификации и характер выполняемых задач. Мы наблюдаем переход от традиционных моделей занятости к новым формам работы, включая удаленные профессии и самозанятость, что в свою очередь требует от работников гибкости и быстрого освоения новых навыков.

В этом контексте крайне важно понимать, каким образом цифровизация открывает новые горизонты на рынке труда, а также какие вызовы и трудности возникают у работников, стремящихся адаптироваться к стремительно меняющимся условиям. Отчет под названием "Будущее занятости" предлагает детальный анализ текущего состояния рынка труда и необходимых навыков, фиксируя динамику изменений. Этот отчет, впервые опубликованный в 2016 году, теперь доступен в своем четвертом издании, сосредоточенном на макроэкономических трендах с 2023 по 2027 год и их влиянии на рынок труда и спрос на навыки. В исследование "Будущее занятости" включены данные от

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803 компаний из различных уголков мира, которые вместе охватывают более 11,3 миллиона сотрудников в 27 отраслевых кластерах и 45 экономических зонах.

По прогнозам, к 2027 году произойдут значительные изменения в структуре рабочих мест: будет создано 69 миллионов новых вакансий, но одновременно исчезнет 83 миллиона рабочих мест. Новый доклад подчеркивает, что "зеленая" трансформация и оптимизация цепочек поставок будут способствовать чистому приросту занятости. Развитие технологий и расширение доступа к цифровым ресурсам, несмотря на возможные негативные последствия замедления экономического роста и инфляции, приведут к увеличению числа рабочих мест.

Наиболее быстро развивающимися профессиями будут специалисты в области искусственного интеллекта и машинного обучения, эксперты по устойчивому развитию, бизнес-аналитики и специалисты по информационной безопасности. Секторы образования, сельского хозяйства и цифровой торговли ожидают наибольший абсолютный прирост рабочих мест.

Согласно отчету "Перспективы занятости 2023 года", к 2027 году 23 % рабочих мест претерпят изменения: прирост составит 10,2 %, в то время как сокращение — 12,3 % в ближайшие пять лет. 803 опрошенные компании планируют создать 69 миллионов новых вакансий, в то время как 83 миллиона существующих мест будут сокращены, что приведет к чистой потере 14 миллионов рабочих мест, или 2 % от текущего уровня занятости. Основные факторы роста рабочих мест включают переход к "зеленой" экономике и внедрение стандартов ESG. Однако высокая инфляция и замедление экономического роста остаются значительными рисками. Внедрение цифровых технологий продолжает оказывать преобразующее влияние на рынок труда, способствуя созданию новых рабочих мест.

Технологические достижения представляют собой как вызовы, так и новые возможности в сфере занятости. Большинство компаний уверены, что эти изменения окажут положительное влияние на количество рабочих мест. Увеличение использования технологий и цифровизации ведет к быстрому росту новых вакансий. Согласно опросу, 65 % респондентов предсказывают расширение рынка труда в области больших данных. К 2027 году ожидается, что количество вакансий для аналитиков данных, специалистов по большим данным, машинному обучению ИИ и кибербезопасности вырастет в среднем на 30 %. В ближайшие пять лет 42 % компаний планируют обучение сотрудников новым навыкам в области ИИ и больших данных, при этом аналитическое (48 %) и креативное (43 %) мышление приобретают особое значение. Прогнозируется, что цифровизация создаст около 2 миллионов новых вакансий, включая роли в электронной коммерции и цифровом маркетинге. Однако рабочие места, связанные с традиционными офисными функциями, такими как кассиры, будут сокращаться быстрее всего. Хотя автоматизация задач в последние три года изменялась незначительно, предполагается, что в будущем навыки межличностного взаимодействия и оценка будут подвержены автоматизации.

Обзор литературы

Технологический прогресс, безусловно, является одним из основных факторов, кардинально трансформирующих современный рынок труда. Этот процесс затрагивает не только способы производства, но и изменяет требования к квалификации работников, а также перестраивает всю структуру занятости. В этом обзоре рассматриваются важнейшие аспекты воздействия технологических изменений на рынок труда.

Существует множество теоретических подходов к анализу влияния технологического прогресса на занятость. Классическая экономическая теория утверждает, что технологические изменения одновременно порождают новые рабочие места и ведут к исчезновению старых. Важное направление в этом контексте представляет концепция "творческого разрушения" Йозефа Шумпетера, которая иллюстрирует, как старые технологии и профессии постепенно заменяются более новыми и продуктивными.

Эмпирические исследования подтверждают как позитивные, так и негативные последствия технологического развития. Например, исследования в странах с высоким уровнем автоматизации показывают, что автоматизация приводит к снижению числа рабочих мест в традиционных отраслях промышленности, однако открывает новые горизонты в сфере услуг и высоких технологий (Acemoglu & Restrepo, 2018).

Одной из наиболее обсуждаемых тем является изменение требований к квалификации работников. Технический прогресс предъявляет новые требования к сотрудникам, включая навыки цифровой грамотности и постоянное самообучение. Исследования демонстрируют, что высококвалифициро-

ванные специалисты легче адаптируются к автоматизации, в то время как менее квалифицированные работники оказываются более уязвимыми (Brynjolfsson & McAfee, 2018).

Другим значимым направлением является изучение роли государственных и институциональных мер в смягчении негативных последствий технологического прогресса. Политики, направленные на переподготовку и повышение квалификации работников, а также на создание новых рабочих мест в инновационных секторах, могут значительно снизить негативные эффекты автоматизации (OECD, 2019).

Современная эпоха машин характеризуется способностью автоматизировать процессы, ранее доступные лишь человеческому разуму. Алгоритмы искусственного интеллекта и машинного обучения демонстрируют свою способность решать сложные когнитивные задачи, такие как распознавание образов, анализ языка и принятие решений. Автоматизация этих процессов оказывает существенное влияние на будущее труда и занятости (Brynjolfsson & McAfee, 2018).

В последние годы возобновились опасения, что автоматизация и оцифровка могут способствовать росту безработицы (Arntz, 2019).

Хотя технологии искусственного интеллекта заменяют многие рабочие места, их влияние на занятость остаётся неоднозначным. За последние десятилетия наблюдается сокращение рабочих мест в технологическом производственном секторе, но одновременно увеличивается занятость в отраслях, где произошли значительные технологические преобразования (Bessen, 2020).

При обсуждении автоматизации важно учитывать технические аспекты внедрения рассматриваемых технологий. Это включает в себя эффективность и возможности автоматизации процессов (Chui, M., 2020).

Автоматизация способствует снижению производственных затрат за счет замены человеческого труда, что создает новые задачи и повышает неравенство. В переходные периоды неравенство возрастает не только из-за различий в квалификациях, но и из-за роста уровня автоматизации и новых вызовов, что также имеет долгосрочные последствия (Acemoglu, D., & Restrepo, P., 2021).

Взаимодействие между людьми и машинами, а также относительные преимущества человека, играют важную роль, поскольку компьютеры начинают выполнять рутинные задачи, ранее выполнявшиеся людьми. В то же время, навыки, такие как решение сложных проблем, адаптивность и креативность, становятся всё более значимыми (Autor, D. H., 2021).

Также рассматриваются механизмы перемещения работников в регионы с низким уровнем выживания и их производительность (Choudhury, 2020).

Исследования показывают, что ответом на новую технологическую революцию является не рост безработицы, а увеличение нестандартной занятости (Kahn, L. M., 2020). Наши текущие профессии становятся устаревшими, и лишь немногие используют передовые методы (Susskind, D., & Susskind, R., 2020).

Примерно 50 % работников, стремящихся сохранить свои позиции в течение следующего пятилетия, нуждаются в повышении квалификации в ключевых навыках. Исследования также показывают, что государственным учреждениям следует активно поддерживать обучение и повышение квалификации работников, находящихся в уязвимом положении или перемещенных (World Economic Forum, 2020).

Методы

Суть данного исследования заключена в синтезе количественных и качественных аспектов. Во-первых, проведен глубокий анализ правосудия, сосредоточенный на выявлении искусственно сконструированных теорий и моделей, которые связывают технологические новшества с участниками рынка труда. Во-вторых, для эмпирической проверки выдвинутых гипотез было проанализировано множество вторичных данных, включая статистику занятости, расчеты заработных плат и динамику занятости в культурных и художественных секторах. Это позволило установить, что автоматизация и занятость тесно коррелируют в контексте изменяющихся структур.

В рамках исследования использовались методы корреляционного и регрессионного анализа для выявления связи между уровнем высшего образования и человеческими ресурсами. Оценка существующих моделей управления человеческими ресурсами была основана на результатах анализа эмпирических исследований. Важно подчеркнуть, что при анализе необходимо учитывать факторы, которые влияют на восприятие технологического прогресса различными возрастными группами и про-

фессиями. Социальные и культурные корни могут оказать значительное влияние на восприятие автоматизации и её воздействие на занятость.

Использование опросов и фокус-групп стало важным инструментом для сбора информации по каждому из этих аспектов, что делает выводы более комплексными и убедительными. Эти методы помогают глубже понять, как различные социальные контексты и культурные особенности влияют на восприятие технологических изменений и их последствия для рынка труда.

Результаты

Предприниматели считают дефицит навыков и трудности их приобретения одними из основных преград на пути к трансформациям, подчеркивая острейшую необходимость в обучении и повышении квалификации в самых различных областях. Прогнозы указывают на то, что к 2027 году примерно 60 % работников будут нуждаться в дополнительном обучении, хотя в данный момент лишь половина из них имеет доступ к необходимым образовательным ресурсам. Более того, отчеты показывают, что в среднем 44 % навыков каждого сотрудника требуют актуализации.

В условиях существующего разрыва между текущей квалификацией работников и будущими требованиями рынка труда компании и государственные органы должны активно создать возможности для обучения и переподготовки. Около 45 % опрошенных организаций считают, что государственное финансирование образовательных программ может сыграть ключевую роль в привлечении квалифицированных специалистов.

За последние четыре года наблюдается устойчивый рост числа "зеленых" рабочих мест, что подтверждается данными от LinkedIn. Однако процесс переподготовки и освоения "зеленых" навыков не успевает за растущим спросом. Постоянное расширение таких вакансий является позитивным сигналом для соискателей в условиях нестабильного рынка труда, но цифры ясно указывают на недостаточную скорость развития необходимых навыков для решения проблем, связанных с изменением климата. Государства должны активно поддерживать программы по развитию "зеленых" навыков, а компании обязаны активно развивать компетенции своих сотрудников в этой сфере.

В ответ на кризис стоимости жизни 36 % компаний считают, что предложение более высокой заработной платы может привлечь таланты. В то же время многие компании планируют объединить инвестиции и сокращения для повышения производительности и эффективности рабочей силы. Около 80 % опрошенных компаний намерены инвестировать в обучение и автоматизацию процессов на рабочем месте в ближайшие пять лет. Две трети из них ожидают, что инвестиции в обучение окупятся в течение года, улучшая гибкость интерфейса, удовлетворенность сотрудников и производительность труда.

Значимость когнитивных способностей, таких как аналитическое и креативное мышление, продолжает расти. В 2023 году эти навыки будут ключевыми для сотрудников и, вероятно, останутся актуальными в течение следующих пяти лет. Умение работать с технологиями, особенно в области искусственного интеллекта и больших данных, станет еще более важным. Поэтому компаниям следует сосредоточиться на развитии этих навыков в своих стратегиях на ближайшие пять лет (рисунок 1).

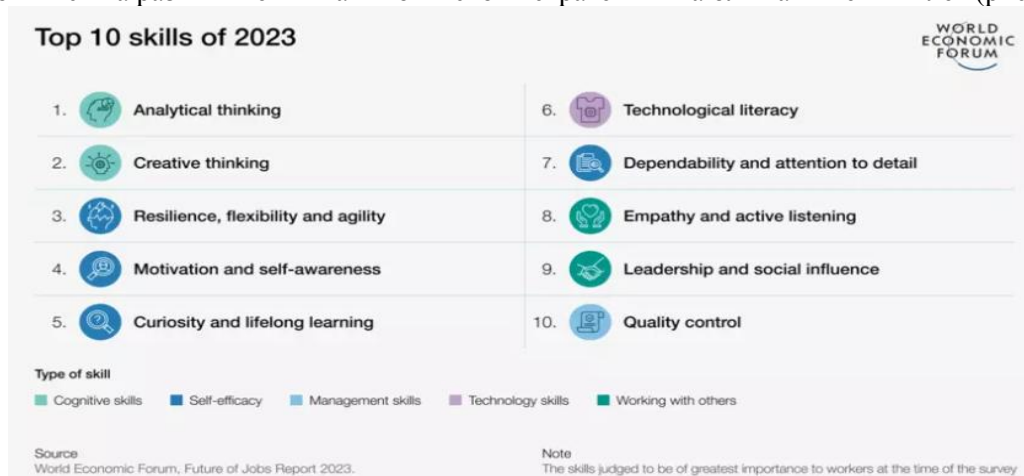


Рисунок 1.10 лучших навыков 2023 года

Примечание – составлено автором на основе данных (World Economic Forum) [Электронный ресурс]. — Режим доступа: <http://www.weforum.org>

Необходимость и возможность ускоренного переобучения становятся всё более очевидными в свете современных вызовов. Джефф Маджонкальда выделяет новые методы, такие как микрооценка в различных отраслях и компетенционно-ориентированный подбор кадров, как потенциальное решение проблемы дефицита квалифицированных специалистов. В свою очередь, Джефф Макдональд, генеральный директор Coursera, выделяет, что для формирования доступных и гибких решений в области переподготовки ключевым моментом является продуктивное взаимодействие между государственным и частным секторами. Он подчеркивает, что успешное сотрудничество этих двух сфер способно значительно улучшить качество образовательных программ и сделать их более адаптированными к современным требованиям. Сложность и многогранность подхода, при котором частные компании и государственные учреждения объединяют свои усилия, открывают новые горизонты для инновационных решений, которые отвечают самым актуальным вызовам рынка труда.

Для успешного проведения регрессионного анализа влияния инвестиций в технологии на уровень безработицы требуется собрать данные по ряду ключевых переменных:

1) Во-первых, необходимо учитывать переменную X , которая отражает инвестиции в технологии. Эта переменная выражается в процентном соотношении компаний, вкладывающих средства в развитие искусственного интеллекта.

2) Во-вторых, следует включить переменную Y , представляющую собой уровень безработицы на глобальном уровне, который оценивается на основе модели Международной организации труда (МОТ) (Таблица 1–2).

Таблица 1. Данные по безработице и инвестициям в технологии.

Жыл	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Y (%)	6,2	6	6	6	5,9	5,8	5,6	6,6	6	5,3
X (млрд \$)	14,6	19	25,4	33,8	53,7	79,6	95,6	146,7	276,1	189,6

Примечание – составлено автором на основе данных (Всемирный банк) [Электронный ресурс]. — Режим доступа: <http://www.worldbank.org>

Таблица 2. Регрессионный анализ

Регрессионная статистика						
Множественный R		0,86613807				
R-квадрат		0,75019516				
Нормированный R-квадрат		0,71896955				
Стандартная ошибка		1,02429503				
Наблюдения		10				
Дисперсионный анализ						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Значимость F</i>
Регрессия		1	25,2065573	25,20655737	24,025	0,0011914
Остаток		8	8,39344262	1,049180327		
Итого		9	33,6			
	Коэффициенты	Стандартная ошибка	t-статистика	P-Значение	Нижние 95 %	Верхние 95 %
Y-пересечение	-2,75409836	1,975937	-1,39382	0,20087	-7,31062	1,80242
Переменная X 1	1,016393442	0,207362	4,90153	0,001191	0,538215	1,494572

Примечание – составлено автором

Разработанная регрессионная модель сосредоточена на исследовании связи между уровнем безработицы и объемом инвестиций в технологический сектор. Она демонстрирует, что увеличение инвестиций в технологии способствует снижению уровня безработицы, что подтверждает гипотезу о том, что технологический прогресс не только создает новые рабочие места, но и преобразует существующие, улучшая их эффективность и продуктивность.

Эти результаты имеют важные практические последствия для политиков и бизнес-сообщества. Инвестиции в технологии становятся ключевым фактором для стимулирования экономического роста

и создания новых рабочих мест, особенно в условиях изменяющегося рынка труда. Многие страны уже начинают разрабатывать стратегии по увеличению инвестиций в инновации с целью поддержки занятости.

Тем не менее, для создания более точных моделей, учитывающих различные аспекты, влияющие на уровень безработицы, необходимы дополнительные исследования. Это открывает возможности для разработки более эффективной экономической политики как на национальном уровне, так и для отдельных организаций.

Результаты исследования также подчеркивают важность высшего образования в развитии человеческих ресурсов в Казахстане, что указывает на положительные социально-экономические результаты, достигнутые благодаря высокому уровню образования. Инвестиции в современные технологии оказывают значительное влияние на рынок труда, в частности, автоматизация и цифровизация повышают трудовую эффективность и создают новые рабочие места в сферах, связанных с технологическим прогрессом. Например, рост промышленного сектора требует квалифицированных специалистов, что способствует снижению безработицы среди молодежи.

Однако инвестиции в технологии также могут привести к значительным изменениям на рынке труда. Работники старых специальностей могут столкнуться с риском потери работы, если не смогут адаптироваться к новым требованиям. В этом контексте программы переподготовки и повышения квалификации играют ключевую роль в смягчении негативных последствий и поддержке занятости.

Современные технологии не только создают новые рабочие места, но и открывают новые возможности для бизнеса. Эффективная политика в области образования и социальной защиты, а также активные инвестиции в технологии могут способствовать снижению уровня безработицы и улучшению экономической ситуации в стране. Ключевым аспектом является комплексный подход: подготовка специалистов, взаимодействие между бизнесом и образовательными учреждениями, поддержка программ переподготовки кадров. Такой интегрированный подход поможет обеспечить устойчивый экономический рост и справедливое распределение возможностей в условиях быстро меняющегося рынка труда.

Выводы

Быстрое развитие цифровых технологий кардинально меняет организацию трудовых процессов, ставя акцент на гибкость и постоянное самообразование. С увеличением автоматизации традиционные профессии оказываются под угрозой исчезновения, что может изменить рынок труда и усугубить неравенство в доступе к новым рабочим местам. Воздействие цифровизации на рынок труда требует комплексного подхода, охватывающего как технические, так и социальные и экономические аспекты инноваций.

С ускорением цифровизации необходимо пересматривать роль человека в профессиональной сфере. Работникам приходится адаптироваться к новым условиям, развивать навыки и осваивать современные технологии, что делает непрерывное обучение ключевым элементом карьерного роста в условиях стремительных изменений и технологических революций. Однако автоматизация и цифровизация представляют собой серьезные вызовы. Угроза потери традиционных рабочих мест, особенно в секторах, подверженных автоматизации, может усугубить социальное неравенство и экономические диспропорции. Поэтому крайне важно не только создавать новые возможности, но и обеспечивать их доступность для различных социальных групп.

Для успешного формирования будущего рынка труда необходима широкая кооперация между государственными органами, образовательными учреждениями и бизнесом. Только комплексный и интегрированный подход позволит минимизировать негативные последствия цифровизации, обеспечивая справедливое распределение ресурсов и возможностей. Это будет способствовать созданию более инклюзивного и устойчивого общества, где новые технологии будут служить не только источником экономического роста, но и социальной справедливости.

Внедрение передовых технологий играет важную роль в развитии стартапов и малого и среднего бизнеса, а также в создании новых рабочих мест. Эти инициативы способствуют развитию предпринимательства, позволяя молодым специалистам реализовывать свои идеи и демонстрировать навыки, создавая динамичный рынок труда, где креативность и инновации становятся основными ценностями. Активные инвестиции в технологические разработки могут стимулировать развитие местной экономики. Например, использование современных технологий в производственном и аграрном секторах может значительно повысить их эффективность и создать новые рабочие места в удаленных и

малообеспеченных регионах. Таким образом, технологии могут способствовать улучшению социального равенства и устойчивому экономическому развитию, делая рынок труда более гибким и доступным.

Тем не менее, для достижения этих результатов необходима тщательно продуманная государственная стратегия, включающая подготовку специалистов разного уровня, активное сотрудничество бизнеса и образовательных учреждений, а также поддержку программ переподготовки кадров. Только при таких условиях инвестиции в новые технологии смогут стать надежной основой для устойчивого экономического роста и снижения уровня безработицы.

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Технологиялық прогресс және оның еңбек нарығына әсері

Аңдатпа

Мақсаты: Зерттеудің мақсаты — технологиялық прогрестің еңбек нарығына ықпалын зерттеу, оның негізгі бағыттары мен нәтижелерін анықтау, сонымен қатар жұмысшылар мен жұмыс берушілерге заманауи технологиялардың әкелген өзгерістеріне бейімделу үшін ұсыныстар әзірлеу.

Әдісі: Зерттеу жүргізу кезінде жүйелі және институционалдық талдау әдістері пайдаланылды. Бұл зерттеу үшін жаңа технологияларға инвестициялар, жұмыссыздық көрсеткіші және басқа да тиісті айнымалылар туралы деректер қамтылған мәліметтер базасы қолданылды. Цифрландыруға бағытталған инвестициялар мен жұмыссыздық деңгейі арасындағы байланысты анықтау мақсатында корреляциялық және регрессиялық талдау әдістері арқылы зерттеу жүргізілді.

Қорытынды: Технологиялық прогресс қызметкерлерден жаңа дағдылар мен білім алуды талап етеді: Ақпараттық технологиялар, деректерді талдау және цифрлық маркетинг мамандары сұранысқа ие бола бастады, ал дәстүрлі кәсіптер маңыздылығын жоғалтуда. Осыған байланысты ultimate зерттеуі технологиялық инновацияларды енгізу үшін ғана емес, сонымен қатар әділ және өнімді жұмыс ортасын құруға ұмтылатын ұйымдар үшін де маңызды құрал бола алады.

Тұжырымдама: Технологияның алға басуы еңбек нарығына елеулі ықпал етіп, жаңа мүмкіндіктер мен қиындықтарды тудырды. Жұмыс берушілер мен қызметкерлер бәсекеге қабілеттіліктерін сақтау үшін өзгерістерге жылдам бейімделулеріне тура келеді. Жұмысшылардың кәсіби біліктіліктерін арттыру бағытында шаралар қабылдау, оларға жаңа жағдайларға адаптациялануға көмектесу, сондай-ақ автоматтандыру нәтижесінде жұмыстан айырылған адамдар үшін қайта даярлау бағдарламаларын қалыптастыру аса қажет.

Кілт сөздер: Технология, цифрландыру, еңбек нарығы, инвестиция, прогресс, жасанды интелект, IT.

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Technological progress and its impact on the labor market

Abstract

Object: The purpose of this research is to examine how advancements in technology influence the job market, highlight key trends and effects, and formulate suggestions for both employees and employers to adjust to the shifts brought about by emerging technologies.

Methods: The research methodology includes methods of systematic and institutional analysis. To carry out the study, a set of data was used that contained information about investments in new technologies, the unemployment rate and other variables related to this group. To determine the existence of a relationship between investments in digitalization and the unemployment rate correlation and regression analysis were used.

Results: Technological progress requires new skills and knowledge from employees. The demand for specialists in IT, Data Analysis and digital marketing is growing, and traditional professions are losing their relevance. Thus, final research can be an important tool for organizations that seek not only technological renewal, but also the creation of fair and productive jobs.

Conclusions: Technological advancement profoundly influences the job market, generating both fresh opportunities and obstacles. To maintain competitiveness, both employers and employees need to adjust to these changes. It is essential to implement strategies that enhance workers' skills, facilitate their adjustment to evolving circumstances, and establish retraining initiatives for individuals who have been displaced by automation.

Keywords: technology, digitalization, labor market, investment, progress, artificial intelligence, IT.

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Экономический эффект потребления сахаросодержащих напитков в Казахстане и нормативные инициативы по сокращению их потребления

Аннотация

Цель: Целью исследования является оценка потенциального экономического ущерба от употребления сахаросодержащих напитков на основе коэффициента DALY, а также изучение стратегий регулирования, принятых в различных странах мира, и направленных на минимизацию потребления сахаросодержащих напитков, для возможности их применения в Казахстане.

Методы: Для проведения исследования были применены методы системного, сравнительного, функционального, экономико-статистического анализа и синтеза, математические методы.

Результаты: Добавление ненужных сахаров в пищевые продукты является важной глобальной проблемой, приводящей к многочисленным краткосрочным и долгосрочным проблемам со здоровьем и растущим расходам, связанных со здоровьем, как для отдельных лиц, так и для правительств. Избыточное потребление сахара приводит к неблагоприятным последствиям для здоровья, включая ожирение, сахарный диабет 2 типа, плохое состояние полости рта, риски онкологических заболеваний и др. Глобальное бремя роста заболеваемости от потребления сахаросодержащих напитков имеет серьезные последствия не только для здравоохранения, но и экономики в целом. Так, размер потерянной прибыли при развитии заболеваний и продолжении употребления энергетических напитков составит 3,2 трлн тенге.

Выводы: В данном обзоре обобщен международный опыт в области налогообложения сахаросодержащих напитков и его эффективность. С точки зрения общественного здравоохранения налогообложение сахаросодержащих напитков рекомендовано на международном уровне в качестве приоритетного компонента комплексного подхода к профилактике ожирения и связанных с питанием неинфекционных заболеваний (далее — НИЗ) и борьбе с ними.

Ключевые слова: здравоохранение, сахаросодержащие напитки, налог на сахар, DALY, экономический эффект, коэффициент дисконтирования, акцизы.

Введение

Сахаросодержащие напитки (СН) — это категория безалкогольных напитков, содержащих калорийные подсластители, такие как сахароза (сахар) или кукурузный сироп с высоким содержанием фруктозы. Примеры: газированные безалкогольные напитки, энергетические напитки, спортивные напитки, фруктовые или овощные соки, готовые к употреблению чай и кофе, подслащенная вода, напитки на основе молока и т.д.

Здоровое питание и отказ от чрезмерного потребления СН являются важными факторами профилактики заболеваний и сохранения здоровья.

Научные исследования подтверждают, что чрезмерное употребление сахара и сахаросодержащих напитков негативно влияет на здоровье. СН не содержат алкоголя, но богаты калориями и сахаром, что может негативно влиять на здоровье. Чрезмерное потребление СН связано с риском ожирения, диабета 2 типа, кариеса и других хронических заболеваний.

В период с 1975 по 2014 год глобальная распространенность ожирения среди взрослых, стандартизированная по возрасту (индекс массы тела [ИМТ] ≥ 30 кг/м²) увеличилась более чем втрое — с 3,2 % до 10,8 % у мужчин и более чем вдвое — с 6,4 % до 14,9 % у женщин (NCD-RisC 2016).

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Распространенность ожирения среди детей и подростков (5–19 лет) резко возросла с 1975 года. Так, в 2016 году 5,6 % девочек и 7,8 % мальчиков в этой возрастной группе имели ожирение. Число детей до 5 лет с избыточным весом стремительно растет, в большей степени это наблюдается в странах с низким и средним уровнем дохода.

Регулярное потребление ССН связано с более высоким риском смерти от всех причин (Mullee et al., 2019). По оценкам, 184 тысячи смертей и 8,5 миллионов лет жизни с поправкой на инвалидность (DALY) во всем мире были связаны с потреблением ССН (Singh et al., 2015).

Хотя ССН не единственный компонент, влияющий на ожирение и НИЗ, их бремя значительно, так как они единственный полностью дискреционный (несущественный) компонент рациона питания (Thow et al., 2018). Помимо последствий для здоровья, отмечаются и экономические последствия. Ожирение и НИЗ снижают предложение рабочей силы, производительность труда и налоговые поступления. Прямые расходы на здравоохранение на лечение ожирения составляют более 2 триллионов долларов США ежегодно.

Таким образом, ситуация с ожирением и НИЗ среди детей и подростков вызывает тревогу. Потребление ССН играет значительную роль в этой проблеме. Необходимы комплексные меры, направленные на снижение потребления ССН, пропаганду здорового питания, борьбу с ожирением и НИЗ.

Обзор литературы

Теоретической основой исследований послужили научные труды отечественных и зарубежных авторов по изучению вопросов влияния сахаросодержащих напитков на здоровье человека, а также по фискальному регулированию.

Источниками информации для исследования послужили:

Нормативные документы: законы, постановления, указы и другие документы, принятые государственными органами Республики Казахстан.

Статистические данные: материалы, предоставленные органами государственной статистики.

Научные работы: статьи, монографии, диссертации и другие материалы, посвященные данной проблеме.

Печатные издания: журналы, газеты, сборники статей, освещающие вопросы, связанные с темой исследования.

Материалы конференций и семинаров: доклады, тезисы, статьи, опубликованные по итогам научных мероприятий.

Статистические порталы: информационные ресурсы международных организаций, таких как Всемирная организация здравоохранения (ВОЗ) и Организация экономического сотрудничества и развития (ОЭСР), содержащие статистические данные по исследуемой теме.

Также, авторами был проведен систематический обзор литературы и поиск доступных нормативных актов по регулированию рынка сахаросодержащих напитков в различных странах.

Методы

В ходе исследования был применен широкий спектр методологических подходов, включающий системный анализ (изучение объекта как целостной системы, взаимосвязанных элементов), сравнительный анализ (сопоставление изучаемого объекта с другими по ряду характеристик), функциональный анализ (выявление функций элементов объекта и их взаимосвязей), экономико-статистический анализ и синтез (сбор, обработка, интерпретация экономических и статистических данных), математические методы (моделирование изучаемых процессов и явлений с помощью математических моделей), диалектические методы (изучение объекта в его развитии, изменении и противоречиях), анализ бремени заболевания (оценка экономических и социальных последствий заболевания).

Результаты

Влияние сахаросодержащих напитков (далее — ССН) на здоровье человека в последние годы стало предметом серьезной озабоченности и исследований. Их потребление связано с целым рядом негативных последствий для здоровья, и понимание этого влияния имеет решающее значение для принятия обоснованных решений в области политики здравоохранения.

Одним из наиболее хорошо документированных последствий чрезмерного потребления ССН является его связь с ожирением и увеличением веса. ССН богаты калориями, но не очень сытны, и их потребление может привести к избытку «пустых» калорий. Со временем это может способствовать появлению лишнего веса и повышению риска ожирения. В свою очередь, это влечет за собой рост

уровня неинфекционных заболеваний (Trumbo PR & Rivers CR., 2014). В этой связи ССН все больше становятся предметом обсуждения и более привлекательными объектами регулирования во всем мире.

Высокое потребление ССН также тесно связано с повышенным риском развития сахарного диабета 2 типа. Чрезмерное потребление сахара может привести к резистентности к инсулину, ключевому фактору в развитии этого нарушения обмена веществ (Imamura F., et al, 2015).

ССН являются основной причиной возникновения кариеса и разрушения зубов. Сахар, содержащийся в сладких напитках, служит источником пищи для вредных бактерий в полости рта, которые вырабатывают кислоту, разрушающую зубную эмаль. Это может привести к целому ряду стоматологических проблем, от кариеса до заболеваний десен (Bleich S.N., et al., 2018).

Чрезмерное потребление ССН также было связано с более высоким риском сердечно-сосудистых заболеваний, включая болезни сердца и высокое кровяное давление. Сахар, содержащийся в этих напитках, может повышать кровяное давление и приводить к воспалению и другим неблагоприятным последствиям для сердечно-сосудистой системы (Malik V.S. and Hu F.B., 2019).

Метаболический синдром, развивающийся в результате употребления ССН, связан с повышенным риском возникновения некоторых видов рака (Chazelas E., 2019).

Существуют доказательства, подтверждающие непосредственную связь употребления ССН с более высоким риском смерти от всех причин. Результаты исследования показывают, что употребление ССН связано со 184 тысячами смертей во всем мире: 76 % в странах с низким и средним уровнем дохода и 72 % связаны с сахарным диабетом 2 типа (Singh G.M., Micha R, 2015).

Эпидемическое бремя заболеваний отрицательно сказывается на экономике страны. Болезни и травмы трудоспособного населения непосредственно снижают их продуктивность. Это приводит к потерям рабочего времени, снижению работоспособности и другим негативным последствиям для производства. Уход из жизни людей трудоспособного возраста из-за преждевременной смерти приводит к потере человеческого капитала и производительного потенциала. Это негативно влияет на экономический рост и благосостояние общества.

Таким образом, здоровье населения является важным фактором экономического развития и благосостояния страны.

Для оценки влияния бремени заболеваний, которые возникают вследствие потребления ССН, был рассчитан показатель DALY (далее — disability-adjusted life years). DALY показывает количество потерянных лет жизни вследствие нетрудоспособности.

Таким образом, DALY — сумма потенциально продуктивных лет, потерянных из-за нетрудоспособности или преждевременной смерти в результате заболеваний и инвалидизации. DALY рассчитывается следующим образом:

$$\text{DALY} = \text{кол-во случаев заболевания} * \text{длительность заболевания} * \text{DW коэффициент потери трудоспособности (удельный вес заболевания)}.$$

DALY был рассчитан для следующих заболеваний: ишемическая болезнь сердца, новообразования, кариес, сахарный диабет. С целью перевода потерянных лет в денежный эквивалент DALY был умножен на ВВП на душу населения.

Сведения о количестве случаев по заболеваниям, упомянутым выше, были взяты из информационных систем МЗ РК по данным о больных, находящихся на диспансерном учете. Длительность заболевания была определена для исследуемой когорты в результате разности ожидаемой продолжительности жизни при рождении и возраста постановки на диспансерный учет.

Коэффициент потери трудоспособности (DW — disease weight) — это весовой коэффициент, отражающий тяжесть заболевания, где 0 — это эквивалент полноценного здоровья, а 1 — эквивалент смерти. Источником данных о коэффициенте потери трудоспособности является исследование Global Burden of Disease Study 2020 (Institute for Health Metrics and Evaluation, 2020). Это масштабное исследование, которое оценивает бремя болезней и травм в разных странах и регионах мира.

Расчет бремени заболеваний, связанный с употреблением ССН, на основе показателя DALY представлен в Таблице 1.

Отметим, что суммарная длительность заболевания в годах получена в результате сложения количества лет, прожитых с заболеванием, с момента постановки на учет по текущее время и количества лет, предстоящих прожить человеку до 74 лет (ожидаемая продолжительность жизни при рождении) (Belousova D. Yu., Zyryanova S. K., Kolbina A. S., 2019). При этом количество лет, предстоящих прожить до 74 лет, является результатом моделирования.

Таблица 1. Расчет бремени заболеваний, вызванных употреблением ССН, на основании показателя DALY

Наименование	DW*	Суммарная длительность заболевания в годах	DALY	ВВП на душу населения, тыс тг [†]	Потерянная прибыль, тыс тг
А	1	2	3=1*2	4	5=3*4
Ишемическая болезнь сердца (I20-I25)	0,019	8 438 384	160 329	5 284,70	847 292 230,57
Кариес зубов (K02)	0,01	2 381 338	23 813	5 284,70	125 846 569,29
Злокачественные новообразования (C03, C04, C05, C06, C10, C13, C15, C16, C20, C22, C23, C25, C56, C50, C54.1, C61, C64, C65)	0,049	1 703 598	83 476	5 284,70	441 147 213,18
Сахарный диабет 2 типа (E11)	0,049	7 067 605	346 313	5 284,70	1 830 158 435,03
ИТОГО					3 244 444 448,07

Примечание – Составлена авторами

Таким образом, размер потерянной прибыли при развитии заболеваний и продолжении употребления энергетических напитков составляет 3,2 трлн тенге.

Для решения проблемы учета рисков ошибок, получаемых в результате долгосрочного моделирования, вводится параметр дисконтирования.

Дисконтирование — это введение поправочного коэффициента при расчете затрат с учетом влияния временного фактора: затраты, которые предстоит понести в будущем, менее значимы, чем понесенные сегодня, и, напротив, выгода, приобретенная сегодня, более ценна, чем предстоящая в будущем (Belousova D. Yu., Zyryanova S. K., Kolbina A. S., 2019).

Таким образом, суть дисконтирования заключается в определении современной стоимости будущих денежных потоков (T. Walley, A. Nauxox, A. Boland, 2004). Дисконтирование проводится по каждому году временного горизонта, за исключением первого года (Jos C.M. Mossink, M.Sc., 2002).

Формула дисконтирования:

где:

PV — приведенная стоимость, то есть сумма, которую нужно инвестировать сегодня, чтобы получить FV в будущем,

— будущая стоимость,

r — ставка дисконтирования,

n — временной горизонт, лет.

Также, был проведен анализ чувствительности к коэффициенту дисконтирования для оценки его влияния на результаты расчета. Для этого помимо рекомендованного Всемирной организацией здравоохранения коэффициента в размере 3 %, было проведено дисконтирование с коэффициентом 5 % (Таблица 2).

Таблица 2. Результаты дисконтирования бремени заболеваний, вызванных употреблением ССН, на основании показателя DALY (тыс. тенге)

№	Наименование	3 %	5 %	0 %
1	Ишемическая болезнь сердца (I20-I25)	709 917 902	642 712 829	847 292 231
2	Кариес зубов (K02)	59 429 997	41 755 765	125 846 569
3	ЗЛОКАЧЕСТВЕННЫЕ НОВООБРАЗОВАНИЯ (C03, C04, C05, C06, C10, C13, C15, C16, C20, C22, C23, C25, C56, C50, C54.1, C61, C64, C65)	364 845 714	330 674 104	441 147 213
4	Сахарный диабет 2 типа (код МКБ-10 E11)	1 574 628 229	1 399 624 422	1 830 158 435
ИТОГО		2 708 821 842	2 414 767 120	3 244 444 448

Примечание – Составлена авторами

* Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Disability Weights. Seattle, United States of America: Institute for Health Metrics and Evaluation (IHME), 2020.

[†] Данные Бюро национальной статистики

После проведенных расчетов с учетом дисконтирования размер упущенной прибыли при 3 %-ном коэффициенте дисконтирования составляет 2,7 трлн.тенге.

Таким образом, расчеты подтверждают, что регулировать потребление сахара необходимо. Уровень его потребления оказывает влияние не только на здоровье населения, но и на экономическое развитие страны.

Обсуждение

Для регулирования рынка сахаросодержащих напитков с целью сокращения их потребления многие страны мира начали принимать различные нормативные инструменты, направленные против увеличения их потребления для улучшения общественного здоровья. Исследования показывают, что в качестве таких инструментов используются налоги. Именно введение налогов привело к определенному снижению потребления ССН.

Существуют два вида налогов, применяемые в мировой практике, — прямые и косвенные.

– Прямые налоги взимаются с доходов, прибылей и прироста капитала физических лиц или компаний.

– Косвенные налоги взимаются с потребления товаров и услуг (т.е. с расходов).

Виды косвенных налогов:

– Акцизный налог: Взимается при производстве или импорте определенных товаров или услуг.

Примеры: Налоги на алкоголь, табак, бензин.

– Налог на импорт (пошлина/тариф): Взимается с товаров, импортируемых для внутреннего потребления обычно в момент ввоза товара в страну. Цель: Защита отечественных производителей и регулирование импорта.

– Налог на добавленную стоимость (НДС) или налог на товары и услуги: Взимается с широкого спектра товаров и услуг в процентах от добавленной стоимости на каждом этапе цепочки поставок.

Примеры: НДС на продукты питания, одежду, услуги ЖКХ.

– Налоги с продаж: Взимается с конечной продажи товаров и услуг. Рассчитывается обычно в процентах от розничной цены. Примеры: Налоги на продажу в магазинах, ресторанах, гостиницах.

Особенности косвенных налогов:

– Взимаются с покупателей, так как включаются в цену товара или услуги. Не всегда напрямую заметны для потребителей.

– Регулируют потребление, так как могут влиять на выбор товаров и услуг потребителями.

– Источник доходов для государства — важный компонент налоговой системы.

Все четыре вида косвенных налогов использовались при налогообложении ССН в различных странах.

Так, в 2021 году Испания повысила НДС на ССН с 10 % (льготная ставка) до 21 % (стандартная ставка). Так, к ССН теперь применяется более высокая ставка налога, чем к более здоровым заменителям. Сниженная (льготная) ставка НДС в Испании продолжает применяться ко всем другим продуктам питания и напиткам (University of North Carolina at Chapel Hill, 2020).

Однако большинство налогов на ССН — это акцизы (87 %). Учитывая, что акцизы составляют большинство налогов на ССН во всем мире, остальная часть этой статьи посвящена этим налогам.

Акцизы считаются наиболее эффективным инструментом налогообложения для здравоохранения, поскольку они могут быть направлены против нездоровых продуктов и повышать цены на них по сравнению с другими товарами и услугами.

Акцизы имеют следующие виды:

– Специальные акцизы: взимаются в виде фиксированных сумм, основанных на некотором показателе потребления. При использовании налогов на ССН налоговые обязательства могут быть определены на основе содержания сахара, объема продукта или комбинации того и другого.

Широко рекомендуются акцизы на содержание сахара, поскольку они создают стимулы со стороны предложения и спроса к переходу на заменители сахара с более низким содержанием сахара или вообще без него. Однако только в 4 странах применяются налоги на ССН исключительно на сахар: Ботсвана, Острова Кука, Маврикий и Южная Африка (World Bank Group, September 2020).

Большинство специальных акцизных сборов основаны на объеме.

– Адвалорный налог: взимается в процентах от стоимости товара. Смешанный налог: Налог, содержащий как адвалорную, так и специальную составляющие. Например, один тип ССН облагается

адвалорным налогом, а другой тип облагается специальным налогом; или, один тип ССН облагается как адвалорным, так и специальным налогом.

Примером смешанного налога является налог на ССН в Мексике, сочетающего адвалорные и зависящие от объема компоненты. Цель налога — снизить потребление ССН, улучшить здоровье населения и сократить расходы на здравоохранение, связанные с ожирением.

Структура налога состоит из фиксированной ставки (1,4 песо за литр) и адвалорного налога (25 % на энергетические напитки, концентраты, порошки и сиропы). Введение налога привело к росту цен на 11 % на безалкогольные напитки и на меньший процент на другие подслащенные напитки (Colchero MA, et al., 2015).

Вместе с тем, повышение цен привело к снижению потребления ССН на 37 % в 2016 году по сравнению с годом до налогообложения (Pedraza LS, et al., 2019). Снижение потребления ССН было наибольшим среди более бедных домохозяйств и тех, кто ранее потребляло большое количество ССН (Ng SW, Rivera JA, Popkin BM, and Colchero MA, 2018). Прогнозируется предотвращение почти 240 тысяч случаев ожирения в течение будущих 10 лет, 39 % из которых — это случаи ожирения у детей. Экономическая эффективность введения налога заключается в снижении расходов на лечение, которое связано с ожирением, благодаря чему получится сэкономить 3,98 доллара на каждый доллар, потраченный на внедрение налога (Basto-Abreu A, et al., 2019).

Таким образом, налог на ССН в Мексике является эффективным инструментом для снижения потребления этих напитков и улучшения здоровья населения. Смешанная структура налога (фиксированная ставка + адвалорный налог) позволяет максимально увеличить его влияние на разные категории потребителей. Данный налог может служить примером для других стран, стремящихся снизить потребление ССН и улучшить здоровье своих граждан.

Акцизы так же могут применяться по единой (постоянной или линейной) ставке или с использованием дифференцированных (многоуровневых) ставок, с пороговым значением, которое не облагается налогом, или без него (например, уровень содержания сахара, ниже которого налог не уплачивается).

Более половины действующих налогов на ССН являются многоуровневыми.

Единые налоги применяются по единой ставке ко всем продуктам, облагаемым налогом, независимо от характеристик продукта. Например, в Малайзии применяется налог, основанный на объемах, а в Южной Африке — налог, взимаемый с сахара.

Так, Малайзия применяет единый акцизный налог, который составляет 0,40 малайзийских ринггита за литр. Напитки, не превышающие определенный объем, не облагаются налогом. Пороговые значения различаются в зависимости от типа напитка.

Южная Африка ввела налог на ССН и назвала его налогом за укрепление здоровья (Health Promotion Levy). Ставка налога составляет 0,021 зар за грамм сахара. Напитки с содержанием сахара мене 4 грамм на 100 мл не облагаются налогом. Напитки с содержанием сахара более 4 грамм сахара на 100 мл облагаются налогом за каждый грамм сахара (Hofman KJ, et al, 2021).

В Великобритании применяются многоуровневые налоги на производство сладких безалкогольных напитков. Налог взимается с производителей напитков в зависимости от количества сахара в них. Напитки с содержанием сахара до 5 грамм на 100 мл не облагаются налогом. Напитки с содержанием сахара от 5 до 8 грамм на 100 мл облагаются налогом в размере 0,18 фунта стерлингов за литр. Напитки с содержанием сахара более 8 грамм на 100 мл облагаются налогом по более высокой ставке — 0,24 фунта стерлингов за литр. Так, введение налога привело к снижению потребления сахарных напитков в Великобритании. Производители стали предлагать больше вариантов напитков с низким содержанием сахара. А также налог принес дополнительные доходы в бюджет, которые могут быть использованы для финансирования программ по улучшению здоровья населения. Таким образом, многоуровневый налог на сахарные напитки в Великобритании демонстрирует, что такой подход может быть эффективным для достижения целей по снижению потребления вредных продуктов и улучшению общественного здоровья. (Smith E, et al, 2018).

Выводы

Ряд правительств по всему миру либо рассматривают, либо уже находятся в процессе разработки налога на ССН. В этом кратком обзоре обобщены международные данные о внедрении и эффективности налогообложения ССН, а также проведены расчеты экономических потерь в случае не регулирования рынка ССН и роста его потребления.

С точки зрения общественного здравоохранения, ССН являются ключевым звеном для вмешательства, учитывая значительное бремя болезней, связанное с ними, и их полностью дискреционную роль в рационе питания. С экономической точки зрения, ССН являются подходящим объектом для регулирования рынка и возможности расширения фискального пространства здравоохранения. Налоги на ССН могут стать эффективным инструментом для улучшения здоровья, благосостояния и экономического развития, который приведет к снижению бремени болезней. Потребители с низкими доходами, вероятно, больше всего выиграют от налогов на ССН, так как они будут вынуждены тратить меньше средств на вредные продукты и больше на здоровые. Дети и молодежь также будут защищены от воздействия маркетинга ССН и стимулированы на потребление здоровых продуктов, которые приведут к улучшению их здоровья и повышению потенциала.

Оптимальная структура налога будет варьироваться в зависимости от юрисдикции. Однако появляющиеся данные демонстрируют некоторые принципы наилучшей практики. Многоуровневые схемы взимания акцизов на основе объема и процентного содержания сахара представляются наиболее эффективными, поскольку они могут стимулировать как изменение поведения потребителей, так и переформулировку отрасли.

Таким образом, практика, принятая в мировой системе, может быть также применена и в Казахстане. При этом налоги на ССН и другие вредные для здоровья продукты в идеале должны вводиться как часть пакета научно обоснованных мер, направленных на улучшение рациона питания населения. Для этого необходимо введение ограничения на маркетинг нездоровых продуктов питания, осуществление четкой и прозрачной маркировки пищевых продуктов и перераспределение государственных инвестиций. Все это приведет к стимулированию внутреннего производства и потребления здоровых продуктов питания.

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Қазақстанда құрамында қант бар сусындарды тұтынудың экономикалық әсері және оларды тұтынуды қысқарту жөніндегі нормативтік бастамалар

Аңдатпа

Мақсаты: Зерттеудің мақсаты Daly коэффициенті негізінде құрамында қант бар сусындарды тұтынудан болатын ықтимал экономикалық залалды бағалау, сондай-ақ Қазақстанда қолдану мүмкіндігі үшін құрамында қант бар сусындарды тұтынуды қысқартуға бағытталған әлемнің әртүрлі елдерінде қабылданған реттеу стратегияларын зерделеу болып табылады.

Әдісі: зерттеудің әдіснамалық базасы ретінде жүйелік, салыстырмалы, функционалды, экономикалық-статистикалық талдау және синтез әдістері, математикалық әдістер қолданылды.

Қорытынды: азық-түлікке қажетсіз қанттарды қосу жеке адамдар үшін де, үкіметтер үшін де көптеген қысқа және ұзақ мерзімді денсаулық мәселелеріне және денсаулыққа байланысты шығындардың өсуіне әкелетін маңызды жаһандық мәселе болып табылады. Қантты шамадан тыс тұтыну денсаулыққа жағымсыз әсер етеді, соның ішінде семіздік, 2 типті қант диабеті, ауыз қуысының нашар жағдайы, қатерлі ісік қаупі және т. б. Қант қосылған сусындарды тұтынудан болатын аурудың өсуінің жаһандық ауыртпалығы Денсаулық сақтау үшін ғана емес, жалпы экономика үшін де ауыр зардаптарға әкеледі. Осылайша, ауруларды дамыту және энергетикалық сусындарды пайдалануды жалғастыру кезінде жоғалған пайда мөлшері 3,2 трлн теңгені құрайды.

Тұжырымдама: бұл шолуда қант қосылған сусындарға салық салу саласындағы халықаралық тәжірибе және оның тиімділігі жинақталған. Қоғамдық денсаулық сақтау тұрғысынан құрамында қант бар сусындарға салық салу халықаралық деңгейде семіздіктің және тамақтануға байланысты жұқпалы емес аурулардың алдын алу және оларға қарсы күрестің кешенді тәсілінің басым құрамдас бөлігі ретінде ұсынылады.

Кілт сөздер: Денсаулық сақтау, қант қосылған сусындар, қант салығы, DALY, экономикалық әсер, дисконттау коэффициенті, акциздер.

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Economic effect of consumption of sugar-containing beverages in Kazakhstan and regulatory initiatives to reduce their consumption

Abstract

Object: The purpose of the study is to assess the potential economic damage from the consumption of sugar-containing beverages based on the DALY coefficient, as well as to study regulatory strategies adopted in various countries of the world aimed at reducing the consumption of sugar-containing beverages, for the possibility of their application in Kazakhstan.

Methods: Methods of systematic, comparative, functional, economic and statistical analysis and synthesis, mathematical methods were used as the methodological basis of the study.

Findings: The addition of unnecessary sugars to food is an important global problem, leading to numerous short- and long-term health problems and increasing health-related costs for both individuals and governments. Excessive sugar consumption leads to adverse health consequences, including obesity, type 2 diabetes, poor oral health, cancer risks, etc. The global burden of increasing morbidity from the consumption of sugar-containing beverages has serious consequences not only for health care, but also for the economy as a whole. Thus, the amount of lost profit in the development of diseases and continued consumption of energy drinks will amount to 3.2 trillion tenge.

Conclusions: This review summarizes the international experience in the field of taxation of sugar-containing beverages and its effectiveness. Internationally, public health experts recommend taxing sugary drinks as a key part of a comprehensive strategy to fight obesity and diet-related chronic diseases.

Keywords: healthcare, sugar-sweetened beverages, sugar tax, DALY, economic effect, discount rate, excise taxes.

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Қазақстан Республикасында кәсіпорындардың инновациялық қызметін талдау

Аңдатпа

Мақсаты: Зерттеудің мақсаты-Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметінің қазіргі жай-күйіне талдау жасау арқылы негізге мәселелерді айқындау, сонымен қатар алдағы уақытта отандық кәсіпорындардың инновациялық қызметін мемлекет тарапынан қолдаудың нақты тетіктерін және дамыту жолдарын ұсыну болып табылады.

Әдісі: Зерттеу барысында салыстыру, сандық және жүйелі талдау, синтездеу, ғылыми зерттеулер нәтижелерін жалпылау, сараптамалық бағалау әдістері қолданылды.

Қорытынды: Зерттеу нәтижелерінен белгілі болғандай соңғы жылдары отандық кәсіпорындар тарапынан өндірілген инновациялық өнімдердің жалпы ішкі өнімдегі үлесінде айтарлықтай өзгерістер жоқ, сонымен қатар кәсіпорындардың инновациялық белсенділігі де өте төмен деңгейде өзгеріссіз қалып отыр. Инновацияларға жұмсалатын шығындардың басым бөлігі кәсіпорындардың меншікті қаражаты және банк ресурстары есебінен қаржыландырылып, негізгі бөлігі заманауи машиналарды, жабдықтарды, бағдарламалық қамтамасыз етуді және басқа да күрделі өнімдерді сатып алуға жұмсалып отыр.

Тұжырымдама: Қазіргі уақытқа дейін мемлекет тарапынан инновациялық дамуды қамтамасыз етуге арналған көптеген жұмыстар іске асырылды және бұл жұмыстар әлі де жалғасуда. Мемлекет тарапынан инновациялық дамуды қамтамасыз ету мақсатында заңдар, мемлекеттік бағдарламалар мен стратегиялық құжаттар қабылданғанына қарамастан инновациялық қызметті қолдауға бағытталған қосымша нақты қолдау шараларының қажеттілігі белгілі болып отыр. Себебі атқарылған шаралар ойдағыдай инновациялық дамуды көрсете алмай келеді. Сондықтан зерттеу нәтижелері бойынша отандық кәсіпорындардың инновациялық қызметін дамыту, инновациялық белсенділігін арттыру үшін мемлекет қаржылық, инфрақұрылымдық және әкімшілік ықпал ету тетіктерін қатар қолдану ұсынылды.

Кілт сөздер: инновация, бәсекелестік, инновациялық қызмет, инновациялық белсенділік, инновациялық өнім, өнімдік инновация, бизнес-процестік инновациялар, инновациялық даму.

Кіріспе

Бүгінгі таңда көптеген елдерде кәсіпорындардағы инновациялық қызметті дамытуға ерекше мән беріліп отыр, бұл олардың бәсекеге қабілеттілігін арттырып, сонымен қатар өз қызметін дамытуға және кеңейтуге мүмкіндік береді. Қазіргі жағдайда кәсіпорындардың инновациялық қызметі ғылыми-техникалық дамудың және ел экономикасының өсуінің драйвері ретінде маңызды бола түсуде.

Табысты инновациялық жобаларды іске асыру кәсіпорындарды бәсекеге қабілеттіліктің жоғары деңгейіне шығарады, ұлттық нарықтың тартымдылығын арттырады. Жаңа өнімдер мен технологияларды шығаратын ғылымдағы кез келген жетістіктер мемлекет халқының өмір сүру жағдайлары мен оның әл-ауқатының өзгеру бағытын қалыптастырады. Кәсіпорындар инновацияларды енгізу арқылы экономиканың үздіксіз дамуын қамтамасыз етуде ерекше рөл атқаруы тиіс. Бәсекелестіктің күшеюі жағдайында инновациясыз кәсіпорынның табысты жұмыс істеуі мен дамуын қамтамасыз ету мүмкін емес.

Қазақстан Республикасында индустриалды-инновациялық дамуды қолдаудың негізгі мақсаты отандық кәсіпорындардың қазіргі жаһандық бәсекеге қабілеттілігін арттыру, сонымен қатар экспорт көлемін барынша ұлғайту болып табылады. Бүгінгі таңда мемлекет тарапынан отандық өнім өндіру

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саласын белсенді қолдау бағытында көптеген шаралар қолға алынып, іске асырылып жатқанымен, олардың бәсекеге қабілеттілігі айтарлықтай артып отырған жоқ, өйткені оларды алға бастайтын инновациялық қызметінде серпіліс жоқ. Осы тұрғыдан алғанда зерттеу тақырыбы өзекті болып табылады.

Әдебиетке шолу

Қазіргі уақытта кәсіпорынның инновациясы нарықтық экономикадағы компаниялардың бәсекеге қабілеттілігінің, өмір сүруінің және дамуының танылған факторына айналуға. Осыған қатысты ғылыми зерттеулердің айтарлықтай өсуі байқалады.

Көптеген ғалымдар кәсіпорындардың инновациялық қызметін зерттеген. Мәселен, D. Rojek кәсіпорынның инновациялылығының стратегиялық факторларын анықтаған (Rojek, 2021). Польшадағы шағын және орта инновациялық өнеркәсіптік өңдеу кәсіпорындарының қызметіне талдау жасаған.

Сонымен қатар, Kijek A., Lisowski M., Starzynska W. Польшаның өндірістік кәсіпорындарындағы инновациялық қызметті айқындаған (Kijek et al., 2013). Олар инновациялық қызметтің тиімділік моделін екі топ бойынша жұмсақ шығындардың инновациялық қызметке айтарлықтай оң әсерін және материалдық шығындардың тиімсіздігін бағалаған.

Monroe-White T., Zook S. макроинституционалды факторлар инновациялардың (өнімге, үдеріске және маркетингке) әр түрлі әсер ететіндігін және дәстүрлі түрде ел деңгейіндегі инновацияларды анықтаған (Monroe-White et al., 2018). Әлеуметтік кәсіпорынның инновациясы мен ұлттық деңгейдегі инновацияларды атап өткен. Кейбір экономистер инновациялық қызметті ескере отырып, кәсіпорынның экономикалық қауіпсіздік деңгейін бағалау қажеттігін айқындаған. Бұл шаруашылық жүргізуші субъектілердің дәрежесін және жоғары қорғаныс пен экономикалық қауіпсіздікті қалыптастыру, бәсекелестікті арттыру болып табылады. Сонымен қатар, Nikolenko T., Semina L. кәсіпорынның экономикалық қауіпсіздігіне инновациялық қызметтің әсер ететін қадамдық рәсімін ұсынған (Nikolenko et al., 2021). Зерттеушілер экономикалық қауіпсіздік саласындағы инновациялар, шаруашылық жүргізуші субъект қызметі, сондай-ақ пайданың айтарлықтай үлесі сыртқы және ішкі орта талаптарының сақталуы, инновациялық әлеуетке тікелей байланысты екендігін мәлімдеген.

Ресейлік экономистер А.В. Трачук пен Н.В. Линдер өнеркәсіптік компаниялардың инновациялық белсенділігі мен инновациялық қызметтің нәтижелігін анықтаған (Трачук және б., 2019). Зерттеу нәтижесінде өнеркәсіптік компаниялардың инновациялық белсенділігін көп факторлы бағалау әдістемесін ұсынған. Өнеркәсіптік компаниялардың инновациялық белсенділігінің интегралды қалыптастыра отырып, компаниялардың инновациялық қызметіне және олардың инновациялық мінез-құлқының өзгеруіне баға беруге мүмкіндік жасалды.

Отандық ғалымдар С.С. Шакеев және басқалар, кәсіпорындардың инновациялық қызметіне және инновациялық үдерістерді енгізу нәтижесінде, кәсіпорындардың тиімділігінің артатындығы туралы зерттеген (Шакеев және б., 2023). Экономистер Қазақстан Республикасындағы кәсіпорындардың инновациялық белсенділігін, өндірілген инновациялық өнім көлемін, кәсіпорындардың инновацияларға жұмсайтын шығындары және кәсіпорындардың инновациялық қызметінің әлеуетін қарастырған.

Әдістері

Осы зерттеу жұмыстары 2018–2022 жылдар аралығындағы отандық кәсіпорындардың инновациялық қызметіне талдау жасау арқылы негізгі мәселелерді анықтау және анықталған мәселелерді шешу бойынша оңтайлы ұсыныстар беруге негізделді.

Қазіргі уақытта көптеген елдерде кәсіпорындардың инновациялық қызметінің статистикасы арнайы бекітілген заңнамалық-құқықтық құжаттар негізінде жүргізіледі. Халықаралық деңгейде инновациялық жаңалықтар Осло қаласында қабылданған шешім бойынша оның технологиялық сипаттары мен нарықтық ұстанымдарын айқындайтын халықаралық стандарттарына сәкес келуі керек (Исабеков Б., 2013).

Қазіргі күнге дейін Осло нұсқаулығының 4 басылымы жарыққа шықты. Елімізде құзырлы статистикалық органдар тарапынан инновация статистикасы осы Осло нұсқаулықтарының талаптары мен ережелеріне сәйкес қалыптастырылады. 2005 жылы қабылданған Осло нұсқаулығының 3-ші басылымында «бүкіл әлем үшін», «тауар нарығы үшін» және «ұйым үшін» инновациялық өнімдер бойынша, сонымен қатар өнімдік, процестік, ұйымдастыру және маркетингтік инновациялар бойынша есепке алу қарастырылған (Oslo Manual, 2005).

Қазақстан Республикасының статистикалық заңнамалық-құқықтық актілеріне сәйкес инновация статистикасы 2013–2021 жылдар аралығында Осло нұсқаулығының 3-ші басылымында көрсетілген инновация түрлері бойынша есепке алынып келді.

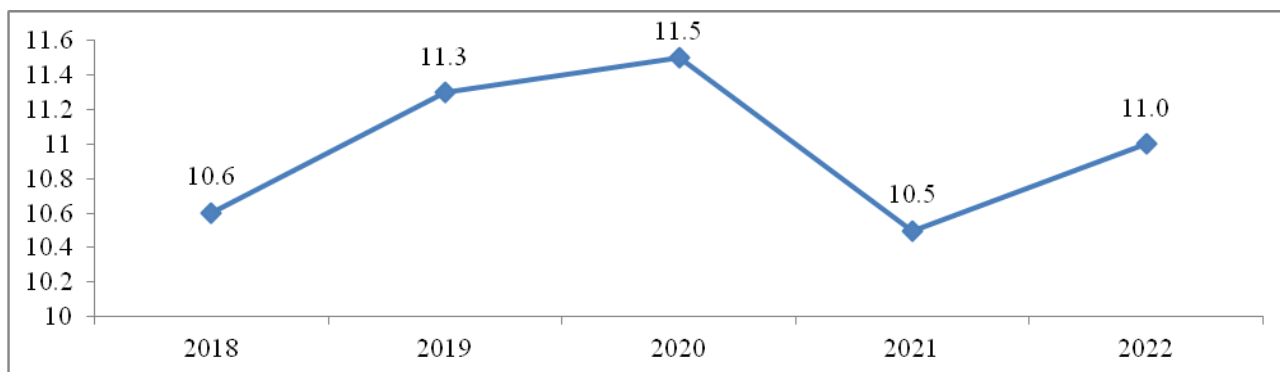
2018 жылы Осло нұсқаулығының 4-ші басылым жарыққа шықты. Бұл 4-ші басылымда білімге негізделген капиталдың артуы, өндіріс үдерісіне заманауи ақпараттық технологиялардың көптеп енгізілуі және тағы басқа тенденциялар ескерілген (Oslo Manual 2018). Осы нұсқаулықта инновация типтерін біріктіріп, өнімдік инновация және бизнес-процестік инновациялары деп 2-ге бөліп қарастырған.

2022 жылдан бастап еліміздеде халықаралық талаптарға сай инновация статистикасында инновация түрлері өнімдік инновация жмен бизнес-процестік инновациялары бойынша есепке алынатын болды (ҚР Стратегиялық жоспарлау және реформалар агенттігі, 2022). Зерттеу барысында салыстыру, сандық және жүйелік талдау, синтездеу, ғылыми зерттеулер нәтижелерін жалпылау, сараптамалық бағалау әдістері қолданылды.

Нәтижелері

Кәсіпорындардың инновациялық қызметі қазіргі заманғы жоғары технологиялық экономиканың шынайылығымен және шарттарымен анықталады, сонымен қатар инновациялар мен инновациялық үдерістерді енгізудің арқасында кәсіпорындардың және тұтастай алғанда экономиканың тиімділігі артады (Шакеев С.С. және б., 2023). Бүгінгі таңда инновациялық қызмет кәсіпорындардың бәсекеге қабілеттілігінің, өмір сүруінің және дамуының негізгі факторларына айналуға (D. Rojek, 2021).

Халықаралық тәжірибеде елдегі кәсіпорындардың инновациялық қызметінің негізгі көрсеткішінің бірі ретінде олардың инновациялық белсенділігі қарастырылады. Инновациялық белсенділік бұл кәсіпорынның қызметінде қандай да бір немесе бірнеше инновация түрімен (өнімдік инновация, бизнес процестік инновациялары) айналысатын кәсіпорындардың пайыздық үлесін көрсететін көрсеткіш. Қазақстан Республикасында 2022 жылдың қорытындысы бойынша кәсіпорындардың инновациялық белсенділігі 2021 жылмен салыстырғанда шамалы жоғарылап 11 %-ды құраған (1-сурет) (ҚР-да инновацияларды дамыту бойынша жалпы мәліметтер).

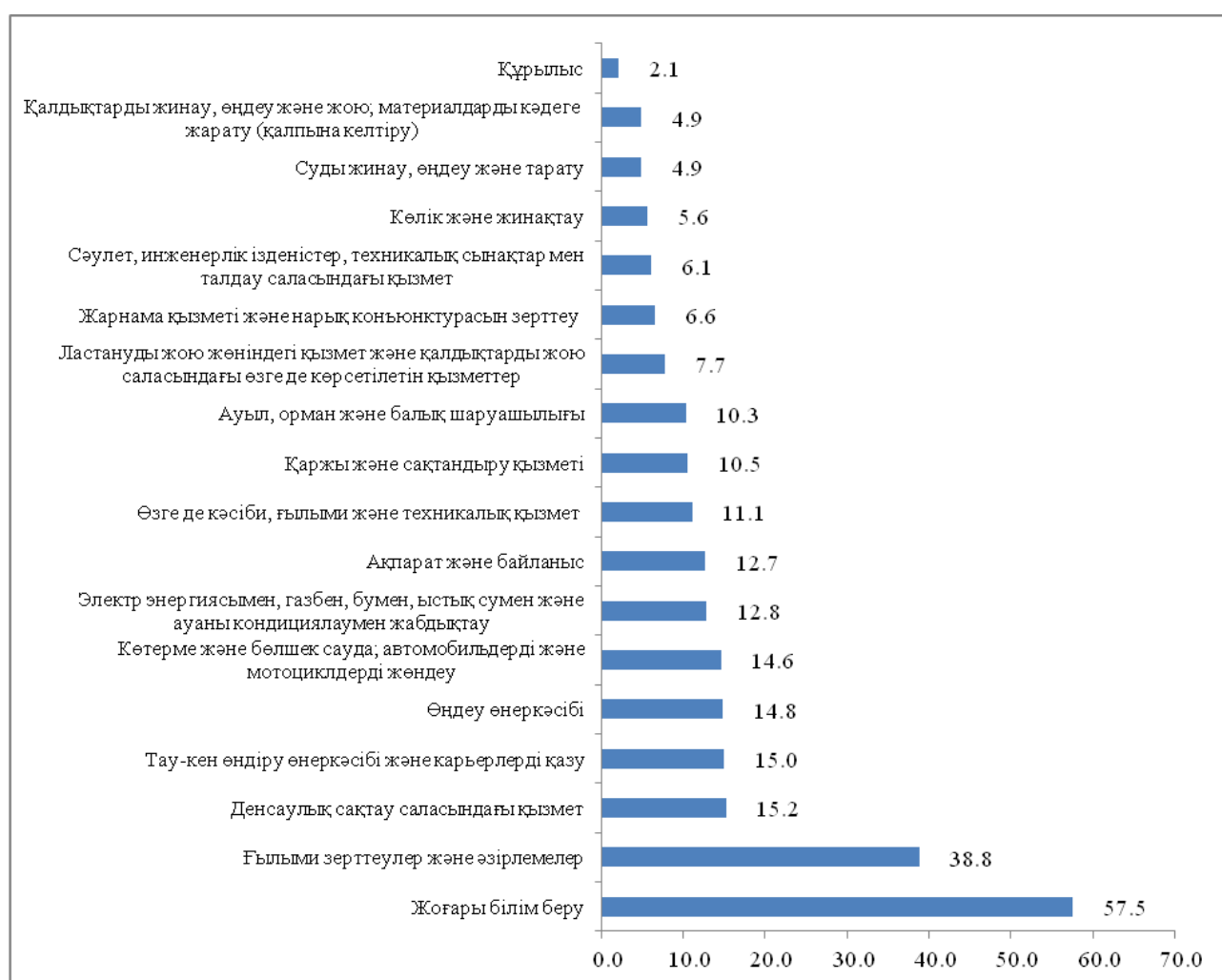


Сурет 1. ҚР-да кәсіпорындардың инновациялық белсенділік деңгейі, %

Ескерту — (Қазақстанның ғылымы және инновациялық қызметі, 2022; ҚР-да инновацияларды дамыту бойынша жалпы мәліметтер) негізінде авторлармен құрастырылды.

1-суреттің көрсеткіштерінен белгілі болғандай, отандық кәсіпорындардың инновациялық белсенділік деңгейі соңғы 5 жылда айтарлықтай өзгермегендігі көрініп тұр, яғни 2018 жылы 10,6 % болса, 2022 жылы 11 %-ды құраған. Бұл отандық кәсіпорындардың инновациялық белсенділігі соңғы 5 жылда өзгеріссіз қалып отырғандығын көрсетеді. Еуропалық Одақ (ЕО) елдерінде кәсіпорындардың инновациялық белсенділігі орташа 50 %-ды құрайды (European Innovation Scoreboard, 2022). Біздің еліміздегі кәсіпорындардың инновациялық белсенділігі ЕО елдерінің көрсеткіштерімен салыстырғанда 4–5 есе төмен екендігін көрсетіп отыр.

Еліміздегі түрлі салаларда қызмет ететін кәсіпорындардың инновациялық белсенділігін қарастыратын болсақ, ең жоғары белсенділік «Жоғары білім беру», «Ғылыми зерттеулер және әзірлемелер», «Денсаулық сақтау саласындағы қызмет», «Тау-кен өндіру өнеркәсібі және карьерлерді қазу» салаларына тиесілі болып отыр (2-сурет).

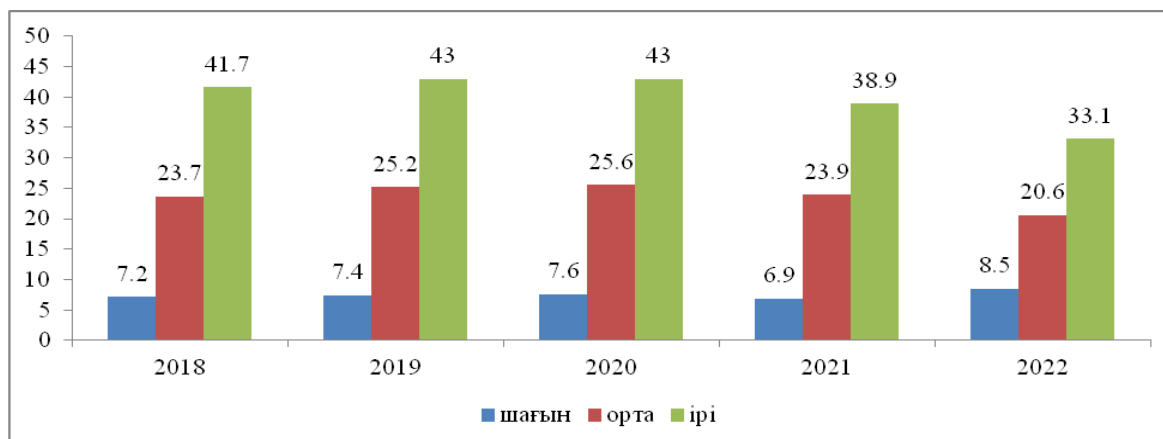


Сурет 2. ҚР-да экономикалық қызмет түрлері бойынша кәсіпорындардың инновациялық белсенділігінің негізгі көрсеткіштері (2022 ж.), %

Ескерту — (Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.

2-сурет мәліметтерінен белгілі болғандай 2022 жылы республика бойынша инновациялық белсенділігі жоғары ұйымдар қатарында «Жоғары білім беру» саласындағы ұйымдардың инновациялық белсенділігі 57,5 %, «Ғылыми зерттеулер мен әзірлемелер» саласындағы ұйымдардың инновациялық белсенділігі 38,8 %, «Денсаулық сақтау саласындағы қызмет» және «Тау-кен өндіру және карьерлерді қазу» саласындағы кәсіпорындардың инновациялық белсенділігі сәйкесінше 15,2 % және 15,0 %-ды құраған. Ал инновациялық белсенділігі өте төмен салаларға келесілерді атап көрсетуге болады: «Суды жинау, өңдеу және тарату» — 4,9 %, «Қалдықтарды жинау, өңдеу және жою, материалдарды кәдеге жатару» — 4,9 %, «Құрылыс» саласындағы кәсіпорындардың инновациялық белсенділігі 2,1 %-ды құраған.

Кәсіпорындардың инновациялық белсенділігін, олардың өлшемділігін, яғни ірі, орта және шағын түрлері бойынша бөліп қарастыратын болсақ, ірі кәсіпорындардың инновациялық белсенділігі жоғары, ал орта және шағын кәсіпорындардың инновациялық белсенділігі төмен екендігі, әсіресе шағын кәсіпорындар бойынша бұл көрсеткіш өте төмен екендігі байқалып отыр (3-сурет).



Сурет 3. Кәсіпорындар өлшемділігі бойынша инновациялық белсенділік көрсеткіштері, %

Ескерту — (Статистикалық жинақ, 2022.; Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.

3-сурет мәліметтері негізінде еліміздегі кәсіпорындардың өлшемділігі бойынша инновациялық белсенділік деңгейін қарастыру нәтижесінде белгілі болғандай ірі кәсіпорындардың инновациялық белсенділігі 2018 жылы 41,7 % болса, 2022 жылы 33,1 %-ға дейін төмендеген, орта кәсіпорындардың инновациялық белсенділігі 2018 жылы 23,7 % болса, 2022 жылы 20,6 % болған, ал шағын кәсіпорындардың инновациялық белсенділігі республика бойынша орташа деңгейден төмен болып отыр, яғни 2018 жылы 7,2 % болса, 2022 жылы 8,5 %-ды құраған. Республика бойынша кәсіпорындардың инновациялық белсенділігінің орташа деңгейінің төмен болып отырғандығының себебі, отандық кәсіпорындардың негізгі бөлігін шағын кәсіпорындары, ал олардың инновация саласындағы белсенділігі жоғарыда көріп өткеніміздей өте төмен болып отыр.

Кейбір сарапшылар шағын кәсіпорындардың инновациялық белсенділігінің төмен болуы, олардың қызметіне инновацияларды енгізуде белгілі бір қиындықтардың болуымен түсіндіреді. Шағын кәсіпорындарға инновацияларды енгізуге қаржы ресурстары мен материалдық ресурстардың тапшылығы, басқарушылық және адами ресурстардың шектеулігі, қаржы институттарының несие бойынша пайыздарының жоғарылығы және кепілзат талап етуі және т.б. (Tudor L., 2018). Ал кейбір сарапшылар керісінше шағын кәсіпорындарды инновацияларды енгізуге ең икемді ретінде инновациялық дамудың негізгі қозғаушы күші болып табылатындығын айтады (Wadho W., Chaudhry A., 2016). АҚШ тәжірибесінде шағын кәсіпорындардың инновациялық белсенділігі жоғары, өйткені мемлекет тарапынан тікелей шағын кәсіпорындардың инновациялық қызметін қолдауға бағытталған жыл сайын 2 млрд көлемінде қаржылық қолдау көрсетіледі (Айбосынова Д.А., 2021).

Келесі кезекте инновация түрі бойынша инновациялық кәсіпорындар санын қарастыратын болсақ, жоғарыда әдістеме бөлімінде атап өткеніміздей республика бойынша 2021 жылға дейін кәсіпорындардың инновациялық қызметі инновацияның 4 түрі бойынша есепке алынды. Бірақ 2022 жылдан бастап инновациялық қызмет өнімдік инновация және бизнес-процестік инновациялар түрлері бойынша бөліп қарастырылуда (1-кесте).

Кесте 1. Инновация түрі бойынша кәсіпорындар саны

Инновация түрі	2018 ж.	2019 ж.	2020 ж.	2021 ж.	Инновация түрі	2022 ж.
Инновацияның төрт түрінің бірі болған кәсіпорындар саны	3 230	3 206	3 236	2 960	Инновацияның екі түрінің бірі болған кәсіпорындар саны	3 390
Өнімдік инновациясы бар кәсіпорындар саны	863	856	934	719	Өнімдік инновациясы бар кәсіпорындар саны	720
Процестік инновациясы бар кәсіпорындар саны	1 530	1 586	1 842	1 438	Бизнес-процестік инновациялары бар кәсіпорындар саны	2 957
Ұйымдық инновациясы бар кәсіпорындар саны	1 082	1 026	859	855		
Маркетингтік	700	614	584	767		

инновациясы бар кәсіпорындар саны						
Инновацияның барлық түрі бар кәсіпорындар саны	37	38	33	52	Инновацияның барлық түрі бар кәсіпорындар саны	287
<i>Ескерту — (Статистикалық жиһнақ, 2022.; Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі, 2022) негізінде авторлармен құрастырылды.</i>						

1-кесте мәліметтері бойынша елімізде 2018 жылы инновацияның төрт түрінің бірі болған кәсіпорындардың саны 3 230 болса, 2022 жылы инновацияның екі түрінің бірі болған кәсіпорындар саны 3 390 болған, яғни 160 бірлікке көбейіп отыр. Өнімдік инновациясы бар кәсіпорындар саны 2018 жылы 863 болса, 2022 жылы олардың саны 143 бірлікке азайып, 720 бірлікті құраған. Ал 2018 жылы процестік, ұйымдық және маркетингтік инновациялары бар кәсіпорындар саны 3 312 бірлік болса, 2022 жылы бизнес-процестік инновациялары бар кәсіпорындар саны 2 957 бірлікті құраған. Инновацияның барлық түрі бар кәсіпорындар саны 2018 жылы 37 бірлік болса, 2022 жылы олардың саны 7,7 есе артып 287 бірлікті құраған. Инновацияның барлық түрі бар кәсіпорындар санының артуын оң өзгеріс ретінде бағалауға болады.

Статистикалық мәліметтерге сәйкес отандық кәсіпорындар тарапынан өндірілген инновациялық өнімдерінің және оның ішінде өткізілген немесе сатылған инновациялық өнімдерінің көлемін қарастыратын болсақ, зерттеу кезеңі аралығында олардың көлемі артып отыр. Бірақ 2021 жылы олардың көлемі біршама азайған, бұл әлемдік пандемиямен байланысты болуы мүмкін, дегенменде 2022 жылы қайта оң динамикалық өсім бар екендігі байқалады (2-кесте).

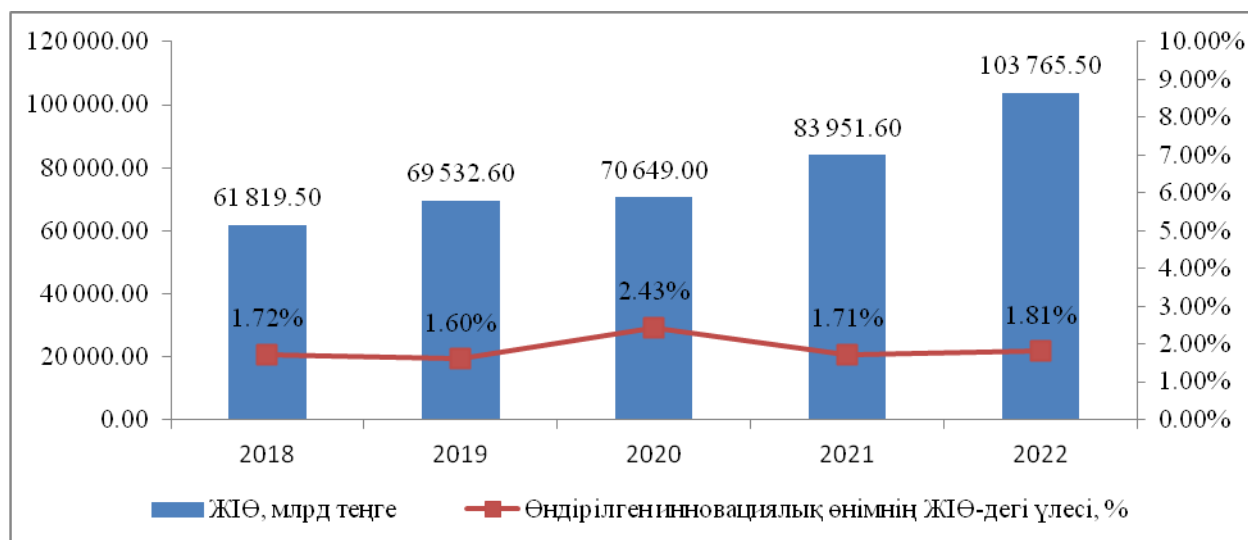
Кесте 2. Өндірілген инновациялық өнімдердің және өткізілген инновациялық өнімдердің көлемі, млн. теңге

	2018 ж.	2019 ж.	2020 ж.	2021 ж.	2022 ж.	2018 жылмен салыстырғанда 2022 ж. өзгеріс	
						+/-	%
Инновациялық өнім көлемі, барлығы	1 064 067,4	1 113 566,5	1 715 500,1	1 438 708,5	1 879 123,1	815 055,7	76,5 %
Өткізілген инновациялық өнім көлемі, барлығы, соның ішінде	1 019 905,8	996 890,6	1 664 604,1	1 318 106,1	1 739 822,8	719 917	70,5 %
- ұйым үшін жаңа болып табылатын жаңа немесе едәуір жетілдірілген өнім	351 017,0	270 937,9	970 956,0	756 736,9	1 180 413,8	829 396,8	2,3 есе
- тауар нарығы үшін жаңа болып табылатын жаңа немесе едәуір жетілдірілген өнім	668 888,8	725 952,7	693 648,1	561 369,2	559 409	-109 479,8	-16,3 %
- бүкіл әлем үшін жаңа болып табылатын жаңа немесе едәуір жетілдірілген өнім	-	-	-	-	-	-	-
<i>Ескерту — (Статистикалық жиһнақ, 2022.; Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.</i>							

2-кесте мәліметтері бойынша зерттеу кезеңі аралығында отандық кәсіпорындар тарапынан бүкіл әлем үшін жаңа болып табылатын инновациялық өнім өндірілмегендігі белгілі болды. Ал республика бойынша өндірілген инновациялық өнім көлемі 2018 жылы 1 064 067,4 млн. теңге болса, 2022 жылы оның көлемі 76,5 %-ға ұлғайып 1 879 123,1 млн. теңгені құраған. Осы өндірілген инновациялық өнімнің ішінде сатылған инновациялық өнім көлемі 2018 жылы 1 019 905,8 млн. теңге болса, 2022 жылы оның көлемі 70,5 %-ға ұлғайып 1 739 822,8 млн. теңгені құраған. Өткізілген инновациялық құрамында ұйым үшін жаңа болып табылатын инновациялық өнім көлемі 2018 жылы 351 017 млн. теңге болса, 2022 жылы оның көлемі 203 есе көбейіп 829 396,8 млн. теңгені құраған. Ал тауар нарығы үшін жаңа болып табылатын инновациялық өнім көлемі 2018 жылы 668 888,8 млн. теңге болса, 2022 жылы оның көлемі 16,3 %-ға азайып 559 369,2 млн. теңгені құраған.

Бұл 2-кестеде қарастырылған статистикалық мәліметтер республика бойынша инновациялық өнім көлемі жыл сайын өсіп отырғандығын айғақтауы мүмкін. Бірақ өткен жылдардағы инфляция

деңгейі мен бағаның өсуін ескеретін болсақ, бұл оң өзгерістерді сала жай-күйінің шынайы көрсеткіші ретінде қарастырудың қажеті жоқ деген тұжырым жасауға болады. Сондай-ақ, еліміздегі өндірілген инновациялық өнім көлемі өскенімен, зерттеу кезеңі аралығында оның ЖІӨ көлеміндегі үлесі 2 %-дан аспай (тек 2020 жылы 2,43 % болған), өзгеріссіз қалып отыр (4-сурет).



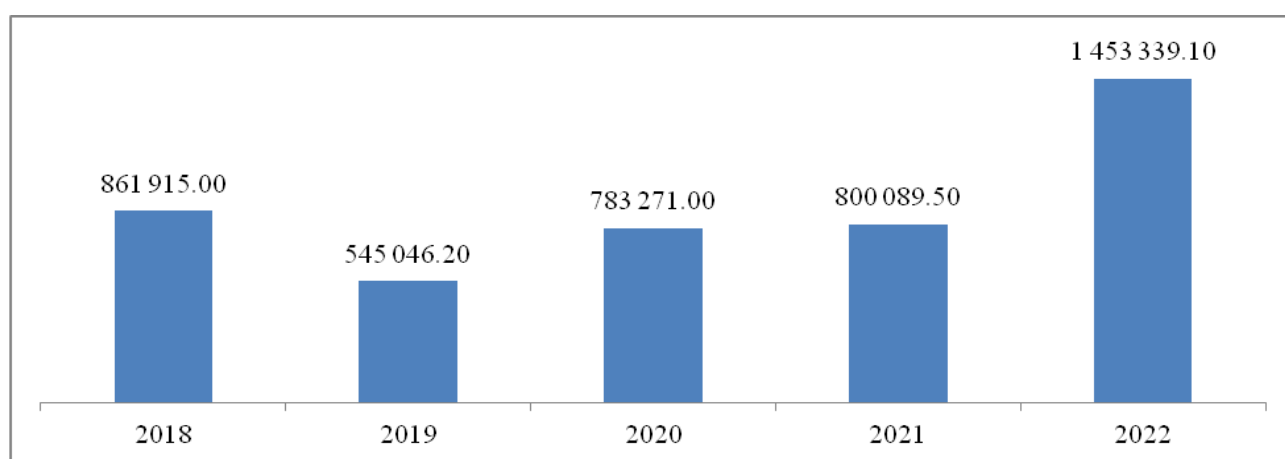
Сурет 4. Қазақстан Республикасы ЖІӨ-дегі инновациялық өнімдердің үлесі, %

Ескерту — (Қазақстан 2021 жылы. Статистикалық жылнама, 2022; Статистикалық жинақ, 2022; Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі, 2022) негізінде авторлармен құрастырылды.

4-сурет мәліметтерінен белгілі болғандай 2018 жылы жалпы ішкі өнім (ЖІӨ) көлемі 61 819,5 млрд. теңге болса, оның құрамында өндірілген инновациялық өнімнің үлесі 1,72 %-ды (немесе 1 064 067,4 млн. теңге), ал 2022 жылы ЖІӨ көлемі 103 765,5 млрд. теңге болса, оның құрамында өндірілген инновациялық өнімнің үлесі 1,81 %-ды (немесе 1 879 123,1 млн. теңгені) құраған. Республика бойынша ЖІӨ көлемі 2022 жылы 2018 жылмен салыстырғанда 67,8 %-ға (немесе 41 946 млрд. теңгеге) артқан болса, өндірілген инновациялық өнім көлемі 76,5 %-ға (815 055,7 млн. теңгеге) артып отыр.

Инновациялық өнім өндіру бұл кәсіпорын үшін жаңа болғандықтан белгілі бір деңгейде тәуекелдің және қосымша шығындардың болатыны белгілі. Себебі инновациялық өнім өндіру кәсіпорын үшін жаңалық болғандықтан және бұрын тәжірибе болмағандықтан тәуекелге бара отырып қомақты шығын да жұмсайтын болады. Кәсіпорынның инновациялық өнім өндіруге жұмсайтын шығын көбірек болғанымен, алдағы уақытта жоба сәтті іске асырылып, инновациялық өнім өндіретін болса, алатын табысы да соншалық көбірек болатыны белгілі. Жалпы кәсіпорын үшін инновациялық өнім өндіру тиімді болуы тиіс (Kijek A. et al., 2013).

Өнеркәсіптік компаниялар ұлттық инновациялық жүйенің негізгі элементі болып табылады. Олардың ғылыми-зерттеу және тәжірибелік-конструкторлық жұмыстарға (ҒЗТКЖ), инновациялық жобаларға салған инвестицияларының көлемі тиісті салалардың технологиялық дамуына тікелей әсер етеді (А.В. Трачук, Н.В. Линдер, 2019). Батыс елдеріндегі кейбір компаниялар жылдық кірісінің көп бөлігін, тіпті жылдық бюджетінің жартысынан астамын инновациялық жобаларды іске асыруға инвестициялайды (Nasiri A. et al., 2016). Отандық кәсіпорындардың инновацияға жұмсаған шығындарын қарастыратын болсақ, 2018–2022 жылдар аралығында оның жалпы көлемі 4,4 трлн теңгеден асып отыр (5-сурет).

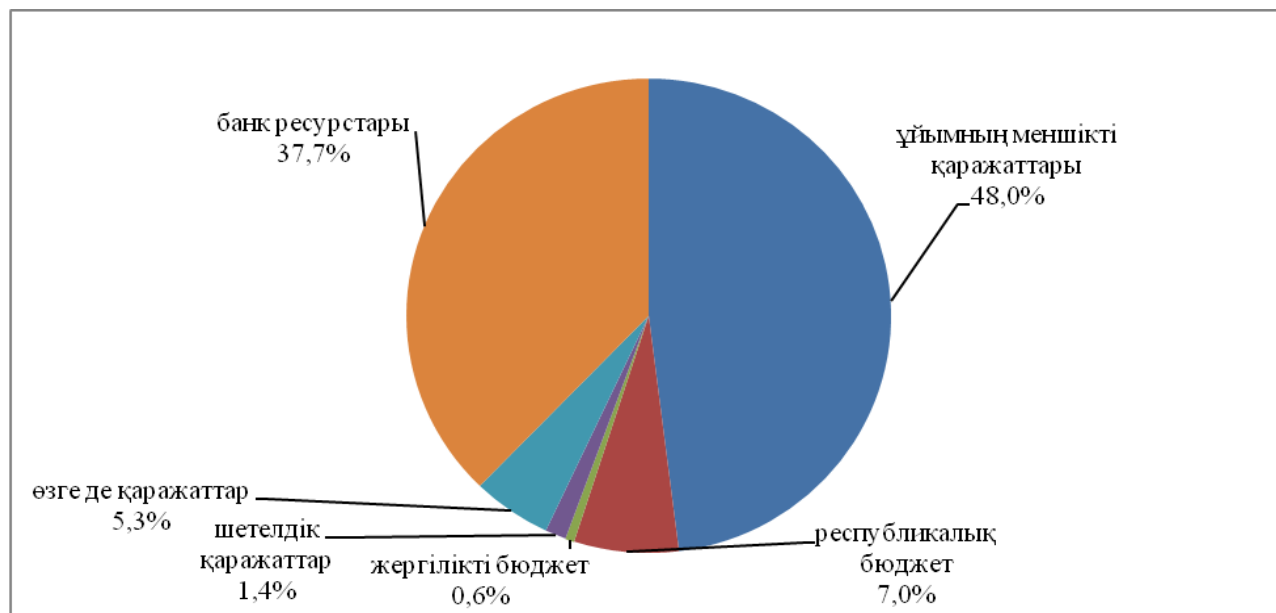


Сурет 5. Инновацияларға жұмсалған шығындар, млн. теңге

Ескерту — (Статистикалық жинақ, 2022; Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.

5-сурет мәліметтері бойынша республикамызда 2018 жылы инновацияларға жұмсалған барлық шығындар 861 915 млн. теңге болса, 2022 жылы оның көлемі 2018 жылмен салыстырғанда 68,6 %-ға көбейіп, 1 453 339,1 млн. теңгені құраған. Бұл елімізде инновацияларды енгізуге, инновациялық өнімдерді шығаруға кәсіпорындар тарапынан қызығушылықтың артып келе жатқандығын көрсетіп отыр.

Инновацияларды енгізуге жұмсалған шығындарды қаржыландыру әртүрлі көздер бойынша жүзеге асырылады. Осы инновацияларды енгізуге арналған шығындарды қаржыландыруда ұйымның меншікті қаражатының үлесі барлық шығындардың жартысына жуығын құрап отыр. Республика бойынша 2022 жылы инновацияларға жұмсалған шығындардың сомасы 1 453 339,1 млн. теңге болса, оның небәрі 7,6 %-ы ғана мемлекеттік бюджет (оның 7 %-ы республикалық бюджет, 0,6 %-ы жергілікті бюджет) есебінен қаржыландырылған (6-сурет).



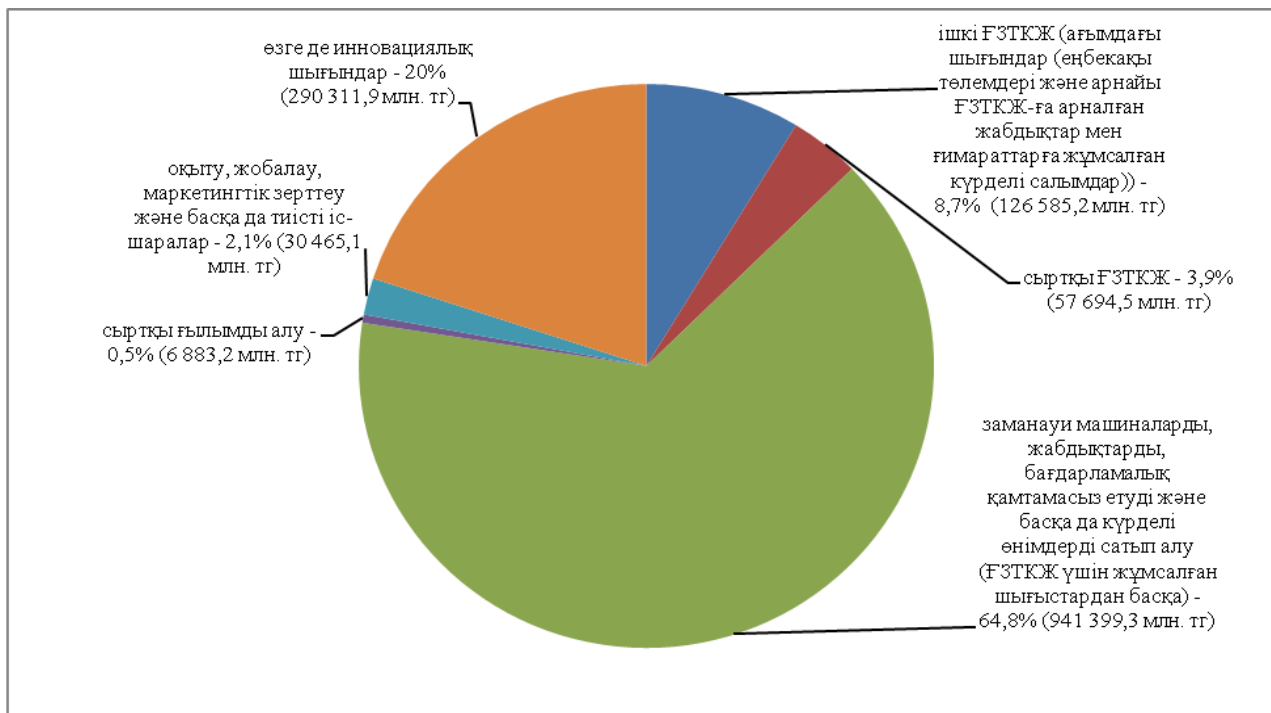
Сурет 6. Қаржыландыру көздері бойынша инновацияларға жұмсалған шығындар, (2022 ж.), %

Ескерту — (Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.

6-сурет мәліметтеріне сәйкес 2022 жылы қаржыландыру көздері бойынша инновацияларға жұмсалған шығындардың 48 %-ы немесе 693 569,6 млн. теңге ұйымның меншікті қаражаттары есебінен, 37,7 %-ы немесе 549 068,3 млн. теңге банк ресурстары есебінен, 7 %-ы немесе 101 171,8 млн. теңге республикалық бюджет есебінен, 1,4 %-ы немесе 20 998,9 млн. теңге шетелдік қаражаттар

есебінен, 0,6 %-ы немесе 8 650 млн. теңге жергілікті бюджеттер есебінен, 5,3 %-ы немесе 15 759,8 млн. теңге өзге де қаражаттар есебінен қаржыландырылған.

Инновацияларға жұмсалған шығындардың қандай мақсаттарда жұмсалғандығын қарастыратын болсақ, шығындардың басым бөлігі заманауи машиналар мен жабдықтарды, бағдарламалық қамтамасыз етуді, сондай-ақ басқа да күрделі өнімдерді сатып алуға жұмсалған (7-сурет).



Сурет 7. Шығын түрлері бойынша инновацияларға жұмсалған шығындар (2022 ж.)

Ескерту — (Қазақстан Республикасындағы кәсіпорындардың инновациялық қызметі туралы, 2022) негізінде авторлармен құрастырылды.

7-сурет бойынша 2022 жылы еліміз бойынша инновацияларға 1 453 339,1 млн. теңге шығын жұмсалған болса, сол шығынның 64,8 %-ы заманауи машиналар мен жабдықтарды, бағдарламалық қамтамасыз етуді, сондай-ақ басқа да күрделі өнімдерді сатып алуға, 8,7 %-ы ішкі ҒЗТКЖ-ға, 3,9 %-ы сыртқы ҒЗТКЖ-ға, 2,1 %-ы маркетингтік зерттеу, жобалау, оқыту және т.б. тиісті шараларға, 0,5 %-ы сыртқы ғылымды алуға, ал қалған 20 %-ы өзге де инновациялық шығындарға жұмсалған.

Қазіргі уақытта отандық кәсіпкерлер өз өндірісін дамыту, бәсекеге қабілеттілікті арттыру және халықаралық нарыққа шығу үшін мемлекет тарапынан жасалып жатқан барлық мүмкіндіктерді пайдалана отырып, барынша өз қызметіне инновацияларды енгізу арқылы қол жеткізе алады. Әлемдік тәжірибе көрсетіп отырғандай инновациялар негізінен ғылыми-зерттеу жұмыстарын жүргізу нәтижесінде қалыптасады және іске асырылады. Ал ғылыми-зерттеу жұмыстарын жүргізу және оның нәтижелі болуы көп жағдайда тікелей қаржыландыру көлеміне байланысты. Қазіргі уақытта ҒЗТКЖ қаржыландыру көлемі әр елде әртүрлі болып келеді. атап айтатын болсақ, дамыған елдерде оның көлемі сол елдің ЖІӨ-нің 2,5–4,2 %-ын құрайды (Сорокин А.Е., Новиков С.В., 2018; Кузьмин Е.Ю. и др., 2020), ал Қазақстанда бұл көрсеткіш 2022 жылы 0,12 %-ды құраған (Национальный доклад по науке, 2023).

Бүгінгі таңда Қазақстан Республикасындағы инновациялық қызметті мемлекеттік қолдаудың маңызды құралдарының бірі инновациялық гранттар болып табылады. Олар 3 негізгі бағытқа: жұмыс істеп тұрған кәсіпорындарға, салаларды технологиялық дамытуға және коммерцияландыруға арналып отыр. осы аталған бағыттар бойынша 2011–2022 жалдар аралығында 13,3 млрд. теңгеге 338 грант берілген (Инновацияларды мемлекеттік қолдау шаралары).

Зерттеу нәтижелері бойынша мемлекет тарапынан отандық кәсіпорындардың бәсекеге қабілеттілігін арттыруға, олардың өндіретін инновациялық өнімдерінің көлемін көбейту бағытында жүйелі жұмыстарды іске асыру қажет деп есептейміз. Себебі отандық кәсіпорындардың бәсекеге қабілеттілігін арттыру, экспорт көлемін ұлғайту үшін олардың инновациялық қызметін барынша дамыту, инновациялық белсенді кәсіпорындардың санын жыл сайын көбейту, оған мемлекет

тарапынан тікелей және жанама ықпал ету шараларын жүйелі түрде іске асырып отыру қажет. Кез-келген коммерциялық кәсіпорын инновациялық қызметті іске асыруға, бәсекеге қабілетті болуға, инновациялық өнімдер шығаруға мүдделі.

Талқылау

Қазіргі уақытта көптеген елдер экономикалық дамуда инновацияларға ерекше мән беруде. Экономикалық дамудың тарихи перспективалары инновацияның әлеуметтік және экономикалық дамуының драйвері екенін көрсетеді (Monroe-White T., Zook S., 2018). ҚР-да да Үкімет тарапынан инновациялық қызметті қолдауға, барынша дамытуға айрықша көңіл бөлінуде. Инновациялық қызметті қолдау, барынша дамыту мақсатында қажетті заңнамалық база әзірленді. Алайда, жоғарыда қарастырылған кәсіпорындардың инновациялық қызметін талдау нәтижелеріне сүйенсек, еліміздегі инновациялық қызметті дамыту үшін қосымша нақты қолдау шаралары қажет екені белгілі болып отыр. Себебі қабылданған шаралар ойдағыдай инновациялық дамуды көрсете алмай отыр.

Кез-келген мемлекеттің ұлттық инновациялық жүйесінің негізін сол мемлекеттегі инновациялық қызметті іске асыратын кәсіпорындар құрайды деп есептейтін болсақ, онда мемлекет тарапынан кәсіпорындардың ерекшеліктерін ескере отырып, олардың инновациялық қызметін қолдауға ерекше көңіл болу қажет. Инновациялық дамуды қамтамасыз ету үшін кәсіпорындарда материалдық-техникалық және өндірістік базалардың жеткілікті деңгейі болуы, өз мамандарының кәсібилігі деңгейін үнемі жетілдіріп отыруы, ақпараттық базаны кеңейтуі, сондай-ақ жаңа серіктестерді, инвесторларды және басқа да мүдделі тараптарды тартуы қажет (Nikolenko T., Semina L., 2021). Бүгінгі таңда елімізде инновациялық қызметті қолдауға мемлекет тарапынан тек қаражат бөліп қана қоймай, инновациялық өнім өндіруге жағдай жасап, қажетті инфрақұрылыммен қамтамасыз ету, одан кейін дайын инновациялық өнімдерді өткізуге байланысты үдерістерді қамтитын кешенді шараларды қолға алу қажет. Сондықтанда отандық кәсіпорындардың инновациялық қызметін дамыту және инновациялық белсенділігін арттыру үшін мемлекет тарапынан қаржылық, инфрақұрылымдық және әкімшілік ықпал ету тетіктерін қамтитын кешенді қолдау шараларын іске асыру қажет деп есептейміз.

Мемлекет қаржы тетіктері арқылы инновацияны енгізу кезінде және одан кейінгі бірнеше жылдар бойы кәсіпорындарға салық жеңілдіктерін қарастыру, инновациялық қызметті қаржыландыруға арнайы субсидиялар беруді қамтамасыз етуі қажет. Сонымен қатар инновациялық өнім шығаратын компанияларды құру кезінде шетелдік инвесторларға қосымша жеңілдіктер беру арқылы ынталандыру шараларын енгізу қажет.

Отандық кәсіпорындардың инновациялық қызметін дамытуда мемлекеттің инфрақұрылымдық тетіктер арқылы ықпалы маңызды. Бұл жерде ең алдымен мемлекеттік сатып алу аясында отандық кәсіпкерлер өндірген инновациялық тауарларға (қызметке) басымдық беру қажет, өйткені инновациялық өнімнің өзіндік құны жоғары болатыны белгілі, ал инновациялық өнімдерді сату кәсіпорын дамуының бастапқы кезеңінде қиындықтар туғызатыны сөзсіз. Сонымен қатар инновациялық қызметті жүзеге асыру үшін білікті мамандармен қамтамасыз ету мәселелерін шешу, заманауи кәсіпорындар құру сияқты мәселелерді түбегейлі қарастыру қажет. Зерттеу нәтижелері көрсеткендей, отандық кәсіпорындардың инновациялар жұмсаған шығындарының 64,8 пайызы озық машиналарға, жабдықтарға, бағдарламалық қамтуға және басқа да күрделі өнімдерге жұмсалып отыр. Сондықтанда инновациялық кәсіпорындарды заманауи құрал-жабдықтармен, зертханалармен, білікті мамандармен, жалпы инфрақұрылыммен қамтамасыз етуге мемлекет тарапынан көбірек көңіл бөлу керек.

Әкімшілік тетіктер арқылы отандық тауар өндірушілердің инновациялық қызметін дамытуға жәрдемдесетін арнайы мемлекеттік бағдарлама әзірлеу қажет. Бұл бағдарламада ғылым мен өндіріс арасында байланысты жақсарту шараларын ұйымдастыруға, авторлардың құқықтарын қорғайтын заманауи жүйе қалыптастыруға, ғылыми-зерттеулердің оң нәтижелерін өндіріске енгізуге, кәсіпкерлерді ғылыми мекемелермен байланыс орнатуға ынталандыруға ерекше назар аудару қажет. Бүгінде елімізде бірнеше индустриялық-инновациялық бағдарламалар қабылданып, жүзеге асырылып жатқаны белгілі. Бірақ бұл бағдарламалар бірінші кезекте инновациялық қызметті дамытуға арналып отырған жоқ, олар елімізде жаңа жұмыс орындарының ашылуына және өндірістің ұлғаюына ықпал еткенімен, кәсіпорындардың инновациялық қызметі дамытуға тікелей әсері байқалмайды. Сондықтан елімізде отандық кәсіпорындарды инновациялық қызметпен айналысуға ынталандыратын арнайы бағдарлама әзірлеу қажет. Сонымен қатар, қазіргі уақытта ғылым мен өндіріс арасында байланыс өте

әлсіз, бұл осы байланысты нығайту үшін мемлекет тарапынан арнайы шаралар қабылдау қажеттігін аңғартады. Өйткені инновация негізінен ҒЗТКЖ нәтижесінде іске асырылатыны белгілі.

Қорытынды

Кәсіпорындардың инновациялық қызметінің дамуы еліміздегі әлеуметтік-экономикалық мәселелердің оң шешімін табуға ықпал етеді. Бұл ең алдымен отандық өндірісті дамытады, экспорттық әлеуетті жоғарлатады, экономикалық қауіпсіздік тұрғысынан отандық өнімдермен ішкі нарықты қамту үлесін арттырады, жұмыссыздық деңгейін төмендетуге оң ықпал етеді, бюджетке салықтық және басқа да түсімдерді қосымша түсімдерін қамтамасыз ететін болады.

Зерттеулер барысында белгілі болғандай шағын кәсіпорындардың орта және ірі кәсіпорындарға қарағанда инновациялық қызметті іске асыруға қаржылық және басқа да мүмкіндіктерінің шектеулі болуына байланысты инновациялық белсенділігі төмен. Дегенменде халықаралық тәжірибелерден белгілі болып отырғандай кешенді түрде қолдау шаралары іске асырылатын болса, шағын кәсіпорындардың да инновациялық белсенділігі артып, нарықта бәсекеге қабілетті өнім шығаруға мүмкіндіктері бар екендігі көрсетіп отыр. Сондықтанда мемлекет тарапынан кәсіпорындардың инновациялық қызметін және олардың бәсекеге қабілеттілігін арттыруда жоғарыда аталған тетіктер арқылы кешенді қолдау шараларын іске асыру қажет.

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Анализ инновационной деятельности предприятий в Республике Казахстан

Аннотация

Цель: Целью исследования является выявить основные проблемы путем анализа современного состояния инновационной деятельности предприятий в Республике Казахстан, а также предложить конкретные механизмы и пути развития поддержки инновационной деятельности отечественных предприятий со стороны государства в дальнейшем.

Методы: В ходе исследования использовались теоретические методы, в частности, сравнительный, количественный и системный анализ, синтез, экспертная оценка, обобщение результатов научных исследований.

Результаты: Как стало известно из результатов анализа, полученных входе исследования в последние годы нет существенных изменений в доле инновационной продукции, произведенной отечественными предприятиями в Валовом Внутреннем Продукте, инновационная активность предприятий остается на очень низком уровне. Большая часть затрат на инновации финансируется за счет собственных средств предприятий и банковских ресурсов, основная часть идет на приобретение современных машин, оборудования, программного обеспечения и других сложных продуктов.

Выводы: На сегодняшний день государством проделана большая работа по обеспечению инновационного развития страны и данная работа продолжается. В целях обеспечения инновационного развития со стороны государства, несмотря на принятие законов, государственных программ и стратегических документов, становится очевидным необходимость дополнительных конкретных мер поддержки, направленных на поддержку инновационной деятельности. Потому, что предпринятые меры не показывают успешного инновационного развития. Поэтому по результатам исследования было предложено параллельно использовать механизмы финансового, административного и инфраструктурного воздействия государства для развития инновационной деятельности, повышения инновационной активности отечественных предприятий.

Ключевые слова: инновация, конкуренция, инновационная деятельность, инновационная активность, инновационный продукт, продуктовые инновации, бизнес-процессные инновации, инновационное развитие.

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Analysis of innovative activity of enterprises in the Republic of Kazakhstan

Abstract

Object: The purpose of research article is to identify the main problems by analyzing the current state of innovative activity of enterprises in the Republic of Kazakhstan, as well as to propose specific mechanisms and ways to develop state support for innovative activities of domestic enterprises in the future.

Methods: Theoretical methods were used at the process of the study, in particular, comparative, quantitative and systematic analysis, synthesis, expert assessment, generalization of research results.

Findings: As it became known from the results of the analysis obtained during the study, in recent years there have been no significant changes in the share of innovative products produced by domestic enterprises in Gross Domestic Product, the innovative activity of enterprises remains at a very low level. Most of the costs of innovation are financed from enterprises own funds banking resources, the bulk goes to the purchase of modern machines, equipment, software and other complex products.

Conclusions: For today, the state has done a lot of work to ensure the innovative development of the country and this work continues. In order to ensure innovative development on the part of the state, despite the adoption of laws, state programs and strategic documents, it becomes obvious that additional specific support measures aimed at supporting innovation activities are needed. Because the measures taken do not show successful innovative development. Therefore, according to the results of the study, it was proposed to use in parallel the mechanisms of financial, administrative and infrastructural influence of the state for the development of innovative activities, increasing the innovative activity of domestic enterprises.

Keywords: innovation, competition, innovation activity, innovative activities, innovative product, product innovation, business process innovation, innovative development.

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Образование как экономическая категория: анализ эволюции

Аннотация

Цель: Изучение взаимосвязи между образованием и экономикой, которая является ключевым фактором процветания любого государства, представляет собой актуальную тему, широко обсуждаемую в экономической науке. В этом контексте необходимо провести всесторонний анализ эволюции этих связей, выявив ключевые тенденции и закономерности.

Методы: В основе текущего исследования лежат работы ученых, доступные в базе данных Scopus, которые предоставляют ценный материал для анализа. Анализ проводился с помощью программного обеспечения VOSviewer для визуализации библиометрических систем. Предметом научного интереса стали публикации, в которых встречаются ключевые слова «образование» и «экономическая категория». Что позволило провести интеллектуальный анализ, изучая научные библиометрические карты

Результаты: В результате проведенного анализа была определена плотность связей между понятиями, структуры в результатах кластерного анализа. Конкретизируется эволюция трансформации понятия выбранных для анализа, под влиянием современных аспектов, на разных этапах включая период формирования. Анализ исторических изменений ранее показал, что характер основного понятия-человеческий капитал, а современные аспекты-инвестиции, квалификация, доходность. Отмечается, что последующие исследования переместились в сферу цифровизации.

Выводы: В результате проведенного анализа установлено что образование является основным фактором повышения экономического роста. Оно в соответствии с современными требованиями, определяет необходимость обеспечения рабочей силы необходимыми навыками и знаниями для достижения высокого успеха.

Ключевые слова: образование, библиометрический анализ, VOSviewer, Scopus, эволюция, экономическая категория, человеческий капитал, исследования.

Введение

В современном мире, отмеченном стремительными технологическими изменениями и глобализацией, образование перестало быть исключительно социальным институтом. Оно трансформировалось в ключевой экономической фактор, влияющий на рост, производительность, инновации и конкурентоспособность стран.

Образование — это не просто процесс обучения, но и сложная экономическая категория, играющая ключевую роль в функционировании общества. С одной стороны, образование выступает как фактор производства, формируя квалифицированную рабочую силу, необходимую для экономического роста. С другой стороны, оно является потребительской ценностью, удовлетворяя потребность человека в знаниях и развитии.

Образование является ключевым элементом, который позволит достигнуть многих других целей в области устойчивого развития (ЦУР). Если у людей есть возможность получить качественное образование, они могут вырваться из порочного круга нищеты. Поэтому образование способствует сокращению неравенства и достижению гендерного равенства. Оно также расширяет возможности для людей во всем мире жить более здоровой и стабильной жизнью. Образование также играет важную

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роль в повышении толерантности в отношениях между людьми и способствует формированию более мирных обществ.

Цель устойчивого развития до 2030 года — обеспечение всеохватного и справедливого качественного образования и поощрение возможности обучения на протяжении всей жизни для всех. Одной из основных задач является: к 2030 году обеспечить для всех женщин и мужчин равный доступ к недорогому и качественному профессионально-техническому и высшему образованию, в том числе университетскому образованию.

Актуальность данного исследования обусловлена следующими факторами:

- повышенная роль образования в глобальной экономике: в условиях стремительной технологической трансформации и глобализации образование становится решающим фактором для повышения конкурентоспособности наций.

- необходимость анализа исторических изменений: прослеживая эволюцию исследований в области образования как экономической категории, можно понять, как менялось понимание его роли в экономике и какие новые концепции и подходы появились.

- поиск оптимальных стратегий: понимание эволюции исследований помогает выявлять наиболее эффективные модели образования, способные обеспечить устойчивое экономическое развитие.

Обзор литературы

Данное исследование направлено на анализ ключевых этапов эволюции исследования образования как экономической категории, выявления доминирующих парадигм и исследовательские направления, а также на определение актуальных задач и перспектив дальнейших исследований в этой области. Можно выделить следующие ключевые этапы эволюции исследования образования как экономической категории:

Первый этап — зарождение и становление (до 1970-х гг.). Характеризовалось тем что, образование рассматривалось как инструмент повышения квалификации рабочей силы и, следовательно, производительности, а также формированием понятия «человеческий капитал». Были ограничения такие как: не учитывались другие аспекты образования, такие как социальные и культурные факторы. Следует выделить таких авторов и их труды как:

Пионер в области экономического анализа человеческого капитала, Шульц в своей работе «Инвестирование в человека: капитал человека в развитии экономики доказал, что образование является инвестицией, которая приносит доход не только индивидууму, но и обществу в целом. Он продемонстрировал связь между образованием, производительностью труда и экономическим ростом» (Theodore W. Schultz, 1961).

Развивая концепции Шульца, Беккер в 1964 году выпустил труд под названием «Человеческий капитал», в котором он значительно расширил это понятие, охватив не только образование, но и здравоохранение, миграцию и обучение. Беккер подчеркнул, что вложения в человеческий капитал играют решающую роль в экономическом росте (Gary S. Becker, 1964).

«Впервые идею о том, что люди с их производственными способностями представляют собой богатство, высказал В. Петти. Ученый указывал на то, что наше представление о богатстве, запасе или состоянии страны, как результат прошлого или предварительного труда, следует рассматривать не как что-то иное, чем живые действующие силы, и требуется их оценивать одинаково» (Петти., 1940).

Деннис, анализируя факторы, влияющие на экономический рост США и других развитых стран, подчеркнул важность образования как ключевого фактора повышения производительности труда (Edward F. Denison, 1967).

Шумпетер, известный своими исследованиями инноваций и предпринимательства, также уделял значительное внимание роли образования в экономическом развитии. В «Капитализме, социализме и демократии» он подчеркивал, как образование способствует появлению инноваций и стимулирует экономический рост (Joseph A. Schumpeter, 1942).

«В своей работе Американский капитализм: теория прагматизма, Гэлбрейт исследовал значение образования в контексте эволюции технологического общества. Он утверждал: образование приобретает все большее значение для повышения квалификации рабочей силы и успешной адаптации к новым технологическим реалиям» (John Kenneth Galbraith, 1952).

Эти авторы заложили основу для дальнейшего исследования образования как экономической категории, подчеркнув его ключевое значение для экономического роста, производительности труда, инноваций и развития общества в целом.

Следующий этап: Расширение и углубление (1970-е — 1990-е гг.) Образование рассматривается как инвестиция, повышающая будущие доходы и благосостояние человека. Подчеркивался индивидуалистический подход, игнорируя влияние социальных факторов.

Джеймс Хекман провел значительные исследования в области экономики образования, особое внимание уделяя влиянию раннего детства на формирование человеческого капитала (James Heckman, 1979).

Пионерские исследования Эрика Хансена продемонстрировали прямую связь между качеством образования и экономическим ростом, заложив основы для дальнейших исследований в этой области (Eric A. Hanushek, 1981).

«В своих трудах, Дэвид Ауэрбах анализирует влияние образования на технологические преобразования, подчеркивая его роль в формировании новых отраслей и развитии экономики» (D. Auerbach, 1983).

Исследования Минсера продемонстрировали тесную взаимосвязь между годами обучения, профессиональным опытом и уровнем заработной платы, подчеркивая ключевую роль образования в повышении доходов (Mincer, J. 1974).

Псахаропулос провел обширный анализ исследований, подтверждающих высокую эффективность инвестиций в образование как для индивидуальных доходов, так и для экономического роста в целом (Psacharopoulos, G. 1994).

В этот период наблюдается переход от простого понимания образования как фактора повышения производительности труда к более комплексному анализу его влияния на экономический рост, технологические изменения, социальное неравенство и глобальные процессы.

Исследования образования как экономической категории за период с 1990 по настоящее время претерпели значительную эволюцию, отражая изменения в глобальной экономике, технологиях и социальных условиях. Этот этап выделяется как «новые горизонты» эволюции образования как экономической категории.

«В своей работе: Влияние неравенства в образовании на социальную мобильность и экономические возможности. Майкл Р. Хоук подчеркивает важную роль образования в преодолении бедности и исследует связь между неравенством в образовании и социальной мобильностью» (M.R. Hough, 2001).

«Андрес Саламанка считает, что образование играет важную роль в развитии инноваций и новых технологий. Он изучает взаимосвязь между образованием, предпринимательством и экономическим ростом, что делает его исследования уникальными и ценными для понимания этого важного процесса» (A. Salamanca, 2003).

Кэтрин Мюррей продолжает исследования по влиянию цифровых технологий на образование, анализируя как преимущества, так и вызовы онлайн-обучения (C. Murrey, 2005).

«Пинк в своих трудах, уделяет особое внимание значению развития творческих способностей и навыков XXI века, которые становятся все более востребованными на фоне стремительной технологической трансформации» (Pink, D. H. 2009).

Джозеф Стиглиц исследует влияние глобализации и автоматизации на систему образования, предлагая свежие идеи обучения, которые будут подготавливать людей к трудоустройству в перенном мире (J.E. Stiglitz, 2012).

Ангус Дитон высказывает свое мнение о влиянии экономического неравенства на образование, подчеркивая крайнюю важность инвестиций в образование для сокращения разрыва между разными слоями населения (A. Deaton, 2013).

Эдвард Лауэрман утверждает в своей работе о влиянии социальных сетей и цифровых технологий на образование: он рассматривает как возможности, так и риски, связанные с онлайн-обучением, отмечая уникальность подобного исследования в контексте современного мира (E. Laumann, 2014).

Адам Смит призывает к исследованию способов интеграции искусственного интеллекта и автоматизации в сферу образования с целью разработки инновационных методов обучения, которые готовят людей к вызовам будущего рынка труда (A. Smith, 2021).

Дэниел Хаусман исследует роль образования в формировании устойчивого развития, подчеркивая важность инвестиций в образование для решения глобальных проблем (Daniel Hausman) (2022).

Дэвид Коллинз анализирует влияние пандемии COVID-19 на образование, подчеркивая необходимость адаптации образовательных систем к новым реалиям (D. Collins, 2023).

Эти авторы, представляя лишь небольшой отрывок от многочисленных современных исследований, демонстрируют, что изучение образования как экономической категории остается динамичным и актуальным. Современные исследования указывают на необходимость дальнейшего изучения комплексной роли образования в экономике, с учетом влияния множества факторов, а также на важность адаптации систем образования к вызовам XXI века. Новые вызовы и тенденции, связанные с развитием технологий, глобализацией и изменениями на рынке труда, требуют новых подходов и исследований в этой области.

Методы

Исследование проводилось в два этапа. Первый этап включал в себя изучение и анализ существующей научной литературы по теме, позволив проследить эволюцию понимания образования как экономической категории. Была выявлена трансформация роли образования в экономике: от его становления как человеческого капитала до признания его влияния на рост национальной экономики.

На втором этапе исследования был проведен анализ публичных данных из базы Scopus, используя инструменты VOSviewer. Основное внимание было уделено анализу типа информации, тематического распределения публикаций, а также их географического и временного распространения. В рамках этого этапа проводилось изучение научного содержания выбранных публикаций.

Результаты

В рамках исследования был проведен анализ статей из базы данных Scopus, используя программное обеспечение VOSviewer. Анализ включал несколько аспектов: типологию распространения информации, тематические направления публикаций, временное и географическое распространение документов, а также их научное содержание.

База данных Scopus позволила проанализировать наиболее распространенные инструменты распространения информации. В частности, на основе анализа публикаций, содержащих словосочетания «экономическая категория» и «образование», был построен график (рисунок 1), отображающий частоту встречаемости данных словосочетаний в названиях, аннотациях или ключевых словах научных статей.

Документы по годам

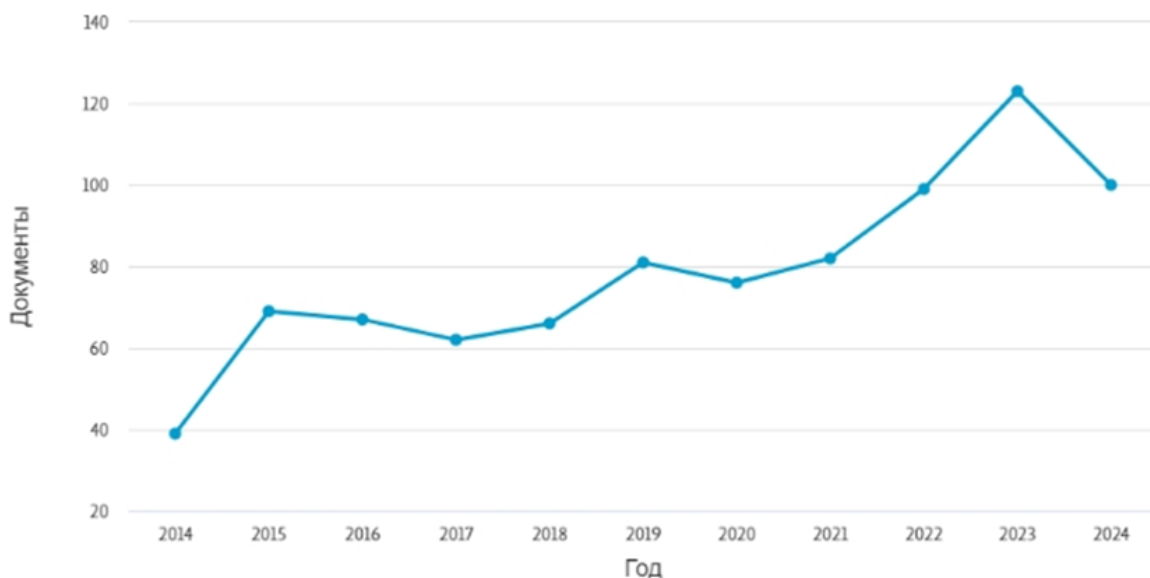


Рисунок 1. Количество документов в год (источник: база данных Scopus)

Примечание — составлено авторами на основе базы данных Scopus.

На картинке показано, что временной промежуток, связанный с данным исследованием взаимосвязи между «образованием» и «экономической категорией», датируется 2014 годом. Из представ-

ленных данных видно, что интерес к этой теме на протяжении этого периода не был постоянным. Взаимосвязь была динамичной и менялась под влиянием различных факторов.

На рисунке 2 представлена географическое распределение научных публикаций на тему взаимосвязи между понятиями "образование" и "экономическая категория" по континентам.

Документы по странам или территориям

Сравнить количества документов максимум по 15 странам/территориям.

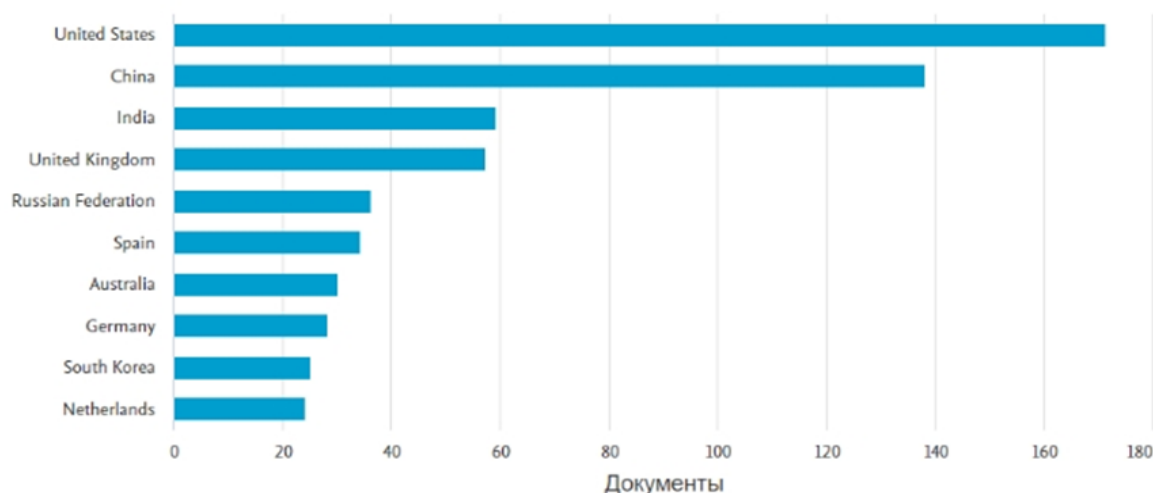


Рисунок 2. Научные литературы по странам/территориям.

Примечание — составлено авторами на основе базы данных Scopus.

Анализ данных проводился с помощью программы VOSviewer, обладающей широким функционалом. Программа позволила систематизировать ключевые слова, авторов, цитаты и другие элементы исследования, а также выявить взаимосвязи между ними.

Географический пейзаж исследований: анализируя картину географического распределения в научных исследованиях, можно увидеть, что страны с высоким уровнем развития, такие как США, Китай, Великобритания и Индия, активно вовлечены в научные исследования. В то же время, развивающиеся страны замечают увеличение научной активности, что указывает на растущие интересы к образовательным проблемам на мировом уровне.

С помощью внутреннего анализа с использованием VOSviewer были проведены четыре этапа исследования (рисунок 3).

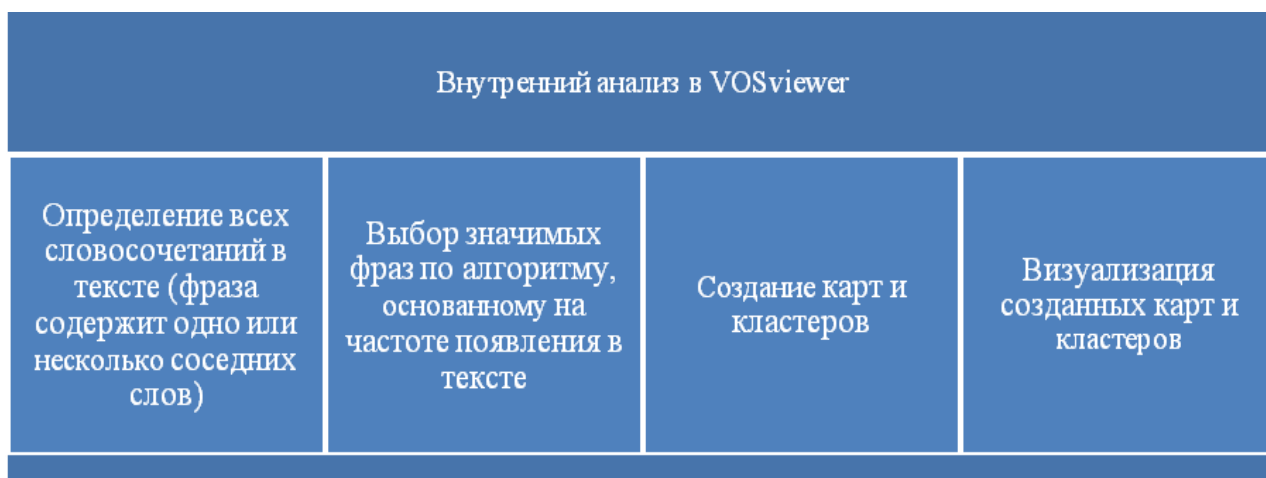


Рисунок 3. Классификация внутреннего анализа в VOSviewer

Примечание — составлен авторами на основании данных ресурса (доступно по адресу <https://www.vosviewer.com/>)

Для анализа этой тенденции программа Scopus провела исследование, используя заголовки, аннотации и ключевые слова. На рисунке 4 представлена визуализация терминов «образование» и «экономическая категория» с помощью инструмента VOSviewer.

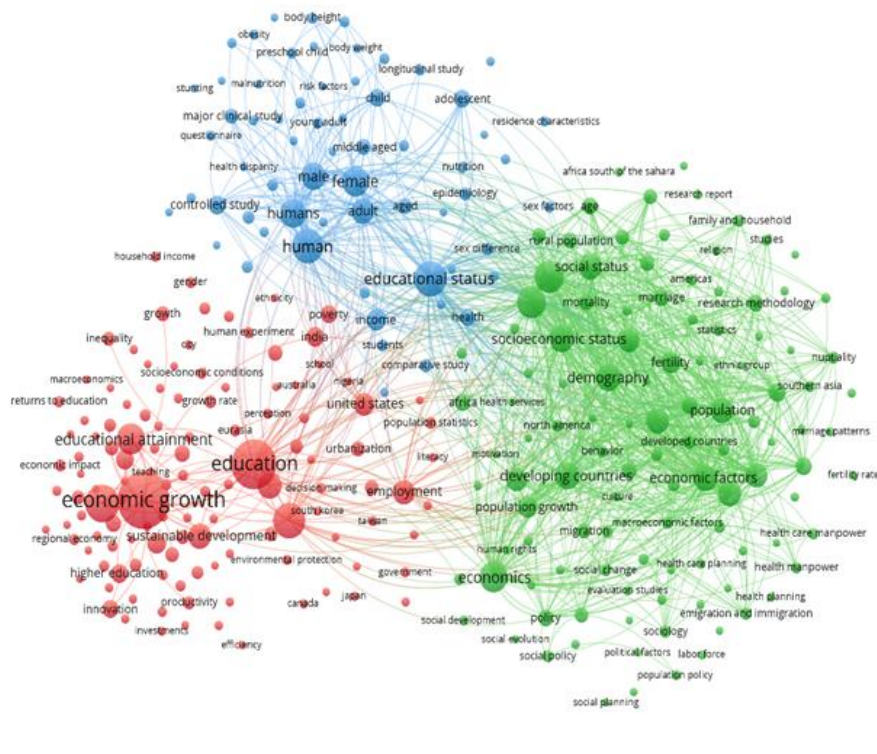


Рисунок 4. Ключевые слова, сгруппированные по кластерам (источник: Scopus, с использованием VOSViewer)

Примечание — составлено авторами на основе базы данных Scopus

Результаты библиометрического анализа подтверждают тесную взаимосвязь между «образованием» и «экономической категорией». Структура кластеров демонстрирует широту тематических направлений, в каждом из которых выделяются в отдельные группы. Цветовое кодирование подчеркивает влияние различных аспектов на фокус каждого направления. Группа с красным цветом, показывает экономический рост и его связь с устойчивым развитием, инновациями, региональной экономикой и достижениями в образовании. Синий цвет отражает гендерные различия и природные характеристики человека. Зеленый цвет — социальный статус и демографические аспекты. Эти аспекты являются ключевыми моментами в исследуемой теме, демонстрируя сложную и многогранную картину мира.

Выводы

Обзор литературы показал, что взаимосвязь между «образованием» и «экономической категорией» эволюционирует со временем. На первом этапе исследований образование рассматривалось как инвестиция в человеческий капитал, направленная на повышение производительности. Следования отмечали, что рентабельность таких инвестиции на индивидуальном и общественном уровне зависит от их последовательности и объема, при этом социальные факторы не учитывались. Н втором этапе исследований по теме, образование стало рассматриваться как фактор, влияющий на повышение уровня жизни, экономический рост, устойчивое развитие и инновации. Третий этап характеризовался переходом от анализа простых показателей к углубленному изучению ключевых факторов, влияющих на экономическое развитие образования. Авторы приходят к выводу, что образование является ключевым фактором, влияющим на экономическое развитие. Его роль становится все более значимой и комплексной, когда мы анализируем взаимосвязь между образованием и различными аспектами экономики.

В соответствии анализом авторов, анализ с использованием программы Vosviewer показал более сложные связи между образованием и экономической категорией. Это также позволило определить

различные аспекты этого взаимодействия путем группировки данных. Основная цель метода кластеризации — обеспечить понятную структуру системы.

В области библиометрических исследований особое внимание уделяется изучению систем. В то время как методы кластеризации используются для анализа этих систем, они позволяют определить основные темы и ориентиры в конкретной научной области. Кроме того, они определяют взаимосвязь между темами или областями. Опять же, они показывают развитие конкретной научной области во времени. Сетевая визуализация подчеркивает сложность исследовательского ландшафта. Она демонстрирует множество связей между основными концепциями и областями исследований, охватывающими широкий спектр дисциплин и точек зрения. В современных условиях высшее образование стало важной составляющей экономики. Человеческий фактор по-прежнему является основным ресурсом развития экономики. Особо ценятся те, кто способен делать открытия, творить в производстве, науке, культуре и т.д. Интересно, что в современных условиях одним из важнейших элементов адаптации человека к изменяющимся условиям является его способность к непрерывному обучению на протяжении всей жизни. Учитывая новые проблемы и возможности, которые предлагает современный мир, необходимо продолжать исследования в этой области.

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Білім экономикалық санат ретінде: эволюцияны талдау

Аннотация

Мақсаты: Экономикалық әдебиеттерде кеңінен талқыланып келген, әр өркениетті елдің дамуында маңызды, экономика мен білім арасындағы байланыстың эволюциясын талдау.

Әдісі: Талдау жүргізу үшін шетел зерттеушілерінің жариялымдардағы еңбектері пайдаланылған. Талдау библиометриялық жүйелерді визуализациялауға арналған VOSviewer бағдарламалық құралы көмегімен жасалды. Ғылыми қызғушылық пәні ретінде «білім саласы» және «экономика» негізгі сөздері кездескен жариялымдар алынды. Ол ғылыми библиометриялық картталарды зерттей отырып, зияткерлік талдау жүргізуге мүмкіндік берді.

Қорытынды: Талдау нәтижесінде, екі ұғымның арасындағы мәселен, байланыстың тығыздығы анықталды, сонымен қатар кластерлік талдаудың нәтижесінде құрылымдары анықталды. Бұл ретте әр кезеңдердегі талдауға алынған ұғымдардың өзгерісі: нақты айтқанда қалыптасу кезеңінен бастап, сондай ақ, заманауи аспектілердің әсерінен түрленуі нақтыланды. Алайда, тарихи өзгерісті талдауда ертеректе негізгі ұғымның сипатының адами капитал болса, заманауи аспектілер инвестиция, біліктілік, табыстылықты қамтитын сипаттарға ауысқанын көрсетті. Кейінгі зерттеулер цифровизациялау төңірегіне көшкені байқалады.

Тұжырымдама: Жүргізілген талдау нәтижесінде: білім, өндірістің өнімділігін арттырып, инновацияларды ынталандырып және капиталды дамыта отырып, экономикалық өсудің негізі факторлардың бірі болып табылады. Алайда, заманауи талаптарға сәйкес, жоғары табысты болу үшін жұмыс күшін қажетті дағдылар мен сондай ақ біліммен қамтамасыз етуіне қажеттілі анықталған.

Кілт сөздер: білім, библиометриялық талдау, VOSviewer, Scopus, эволюция, экономика, адами капитал, зерттеулер.

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Education as an economic category: an analysis of evolution

Abstract

Object: To analyze the evolution of the links between education and the economy, which is important in the development of each country, widely discussed in the economic literature

Methods: For the analysis, the publications of researchers from the Scopus database were used. The analysis was carried out using VOSviewer software for visualization of bibliometric systems. The subject of scientific interest were publications in which the keywords "education" and economics are found.

Results: The evolution of the transformation of the concepts selected for analysis is specified, under the influence of modern aspects, at different stages, including the period of formation. An analysis of historical changes previously showed basic concept is human capital, and modern aspects are investments, qualifications, profitability. It is noted that subsequent research has moved into the field of digitalization.

Conclusions: As a result of the analysis, it was found that education is the main factor in increasing economic growth. In accordance with modern requirements, it determines the need to provide the workforce with the necessary skills and knowledge to achieve high success.

Keywords: education, bibliometric analysis, VOSviewer, Scopus, evolution, economics, human capital, research.

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ҚАРЖЫ, ЕСЕП ЖӘНЕ АУДИТ ФИНАНСЫ, УЧЕТ И АУДИТ FINANCE, ACCOUNTING AND AUDITING

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Unlocking the Potential: The Islamic Finance Social Impact Assessment

Abstract

Object: The rise of Islamic finance, which involves financial instruments operating within the ethical and shariah principles framework and adopted by financial institutions, gains momentum in main global markets. This trend is driven by a new global reality where long-term development cannot occur without addressing deepening social contradictions and ethical norms and Islamic finance's sustainable approach plays vital role. This article aims to assess the Islamic finance social impact and evaluate the covering resource shortfall and poverty reduction through social tools.

Methods: The methodology of the research is based on the empirical methods and examination of the correlation between the country's potential Islamic financial assets, the estimated zakat collection and the coverage of resource shortage.

Findings: The findings have practical implications for the country's socio-economic development. The authors have empirically assessed the resources Kazakhstan requires to cover poverty in the share of the gross domestic product, and the resource gap for poverty reduction. Furthermore, the authors have evaluated the potential zakat collection of the country.

Conclusions: It is suggested that the potential zakat collection can impact the poverty reduction process and address deepening poverty indicators within the country. The zakat institution possesses the capacity to provide support to the impoverished population and potentially reduce government expenditure required to enhance the socially vulnerable population welfare.

Keywords: Islamic finance, sustainability, social finance, poverty reduction, gross domestic product, zakat, resource shortfalls.

Introduction

The objective of study the specifics and principles of Islamic finance in the social sphere reveals that the system based on Islamic finance embodies social distribution elements and fulfills various societal roles based on Shariah principles. Hence, the Islamic finance concept offers alternatives to interest-based finance while adhering to Shariah principles and holds significant importance. Central to Islamic finance is its fundamental feature: the prohibition of interest-based financing. Arising from the original prohibition on *riba* (interest), which promotes genuine economic development and aims to prevent financial and interest-related

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bubbles, Islamic finance seeks to promote economic prosperity by fairly distributing economic resources among economic agents.

The investments addressed to sustainability are contributed by Islamic financial instruments play a essential role, stimulating Islamic finance and sustainability at the same time. The Sustainable Development Agenda of the United Nations comprises 17 specific goals focused on the principle of inclusivity, along with 169 associated targets. These objectives address various dimensions of human life and welfare (Kim, 2023). Similarly, the Islamic finance principles are geared toward safeguarding fundamental aspects of humanity: life, faith, intellect, wealth, and posterity. Guided by Islamic law, these overarching aims prioritize protecting religious freedom and family rights while encouraging intellectual inquiry and preserving wealth (Mahomed, 2017). An analysis reveals a significant correlation between the UN SDGs and Shariah's principles as they share similar core objectives in their respective frameworks, and share a common goal of promoting peace and prosperity on earth through cooperation (Shirazi et al., 2021).

Although Islamic finance may not have an essential impact on socio-economic development as expected, there is the Islamic social finance growing trend which is responding to the increasing demand for ethical investment options globally. Examining the social aspects of Islamic finance demonstrates a range of benefits that are endorsed by its principles and operational mechanisms — effectiveness, stability, fairness, system integration, social commitment, and endurance (Kuanova et al., 2021) (Al-Jarhi, 2017). The principles and mechanisms of Islamic finance, like zakat, sadaqah, waqf, and qard hasan, have been employed to foster socioeconomic empowerment, and these practices have been adopted in contexts beyond the Islamic world. Zakat is a mandatory contribution of earnings, while Waqf denotes charitable donations as an endowment trust. In contrast, Sadaqah is characterized by its voluntary nature, involving giving to those in need without anticipating anything in return. These mechanisms are employed to support education and healthcare, establish infrastructure, and ensure social welfare services for the impoverished and needy, albeit through predominantly informal means (Billah, 2019). Zakat's potential is promising and has been studied by researchers for an extended period; however, increasing interest in the system based on Islamic finance due to its sustainability and resilience to crises deepened the study of zakat in poverty reduction in recent years.

This research aims to assess the social impact of Islamic finance and investigate the potential of zakat collection to address resource gaps and alleviate poverty in Kazakhstan. For this purpose, the study will: assess the current trends in Islamic social finance research; develop a methodology for estimating the potential zakat amount in Kazakhstan; examine how the collected zakat can contribute to covering resource shortfalls and poverty alleviation; and develop recommendations for implementation Islamic social finance effects by using the financial technologies.

Literature Review

Some researchers have suggested integrating various mechanisms for poverty reduction and redistributing wealth in order to create synergies. Collaboration with microfinance and financial organizations could enhance the effectiveness of zakat organizations, implying a need to incorporate zakat and waqf entities into poverty alleviation strategies of member countries such as Kazakhstan within the Islamic Development Bank (Kahf, 2013) (Ahmed Shaikh, 2016). The IDB reports that while zakat has a potential 3 % share of global GDP, its actual collection is only 0.15 % for OIC countries (Obaidullah & Shirazi, 2015). As zakat significant individual-level payments, an accurate reflection of zakat in official data may not always be feasible. The GDP estimate provided by IDB indicates that although OIC member countries collectively generate approximately 6 trillion US dollars, their actual zakat amounts to around 10 billion US dollars despite its estimated potential reaching up to 200 billion US dollars — other recent studies even suggest figures ranging from 200 billion to 1 trillion US dollars (Obaidullah, 2020; Obaidullah & Shirazi, 2018).

Regrettably, roughly 10 % population in the world lives below the international rate of extreme poverty at 1.90 US dollars a day, despite notable advancements in reducing the rate of the poverty from 43 % to more than a quarter of that figure. Nevertheless, approximately one billion individuals globally remain beneath the poverty line. Furthermore, over half (55 %) of the populace cannot access at least one cash benefit from social protection (Zarka & Shirazi, 2017).

Efforts to reduce poverty and inequality often focus on making structural adjustments to the socio-economic framework, including implementing impactful social security initiatives at both local and international levels. Developed nations make efforts to address poverty by implementing social welfare programs aimed at protecting their populations. However, many countries lack effective social security measures or

face challenges in executing these programs successfully. Nonetheless, it is crucial to redistribute funds from wealthier individuals to those living in poverty when developing and operating social programs (Lord, 2018).

Furthermore, the significance and range of zakat in addressing poverty are highly relevant, particularly for developing nations. These conventional Islamic mechanisms have historically been employed to address poverty and provide essential social services to the less fortunate. Given that poverty is increasingly common in the Eastern countries than in the West, it is crucial to explore how these methods can be utilized today to reduce poverty in developing economies (We & Better, 2015). This raises questions about examining the cultures and religious institutions influence on economic factors and results.

Several scholars have investigated the general features of zakat. Firstly, it is exclusively for Muslims. Secondly, it represents a pastoral duty for devout Muslims and is imbued with moral and religious significance that outweighs its financial and economic aspects. Thirdly, zakat embodies an unalterable and voluntary nature of giving (Ummulkhayr et al., 2016).

Zakat, within the economic framework, serves several important purposes: (i) promotes more equitable distribution of living standards within the population and diminish social inequality, thereby potentially alleviating societal tensions; (ii) stimulates investment activity by setting mandatory requirements for assets and cash that unused for one year; (iii) boosts labor demand; (iv) affects the domestic production of goods and services by increasing the incomes of needy, and demand for basic consumer goods, thereby stimulating production; (v) fosters a consumerist culture prevalent among Muslims by consistently reminding them that Allah is the owner of all that exists; (vi) impacts the country's economic growth through encouraging economic activity, redistributing savings towards consumption, investment and growth overall demand (Ahmed, 2004). The curve representing production potential shifts upward due to dynamic forces integrating production with consumption effects (Adnan et al., 2020). The contemporary Islamic economics is not unanimous regarding zakat's size, scope, or payment procedures. Nevertheless, it is acknowledged that assets must meet certain criteria: surpassing nisab (the minimum amount subject to zakat), ownership throughout the year by the payer of zakat, legal acquisition of assets, and personal use.

Zakat serves as a significant and sustainable social safety net by offering material aid to the poor, needy, and destitute in society to meet their basic needs and empower them to become self-sufficient. It also assists in circumstances such as unemployment, inadequate medical expenses, and support for the elderly, disabled individuals, and those facing financial challenges while traveling (Ali Aribi & Arun, 2015). Additionally, Zakat may contribute to individuals in debt by relieving their burden.

The academic interest and academic publications on social impact of Islamic finance increased significantly, experiencing a threefold surge immediately after the crisis, with a continued rise in subsequent years because Islamic financial institutions showed robustness and steadfastness during periods of economic upheaval (Table 1).

Table 1. The literature review of the selected studies

Studies number	Year	Methodology	Finding
7	1979–2000	The literature review examines the rationale, explanations, and justification for IF, and the potential estimation of zakat collection in 8 Muslim countries.	The diverse nature of IF principles. Estimating the amount potential zakat collection.
5	2000–2005	Waqf system issues historical analysis and Islamic and conventional economics' comparative study	The waqf system challenges overcoming recommendations and recommendations for economics modernization
12	2005–2010	The “zakat potential collection (Z)” and “resource shortfall” estimation The of Syariah-compliant finance growth analytical review	(Z) collection is not sufficient for poverty alleviation in the several poor countries. Developing a tripartite framework for religiously motivated philanthropic initiatives
54	2010–2015	International framework for the IF development, assessment, and regulation	The perspectives identification on IF from the social constructivism

46	2016	The links of financial inclusion and the IF services industry qualitative analysis in Muslim countries	IFP framework identification and a financial planning model hierarchy
69	2017	The multivariate data analysis, a clustered regression, objective t-statistics	Larger SSB exhibit greater efficiency compared to smaller s in fulfilling their diverse monitoring and advisory responsibilities
91	2018	The competence, effectiveness SBs issues assessment and qualitative analysis	The external religious auditor’s necessity for compliance assurance
149	2019–2023	Modeling a structural equation for the bank customers analysis The ISF perspectives for SDG	Identifying the impact of attitudes and awareness on direct intentions. Evaluating ISF as an alternative funding source to cover the annual global average investment gap for the SDG

Note — made up by authors on a basis of (Kuanova, 2022)

However, the comprehensive review of the existing literature, encompassing studies in this domain, reveals that research remains constrained, and endeavors to assess the Islamic finance social impact and effects have not been undertaken previously.

Methods

The potential zakat collection estimation and the estimated data allocation for addressing the resource gap and funding sources are significant for individuals living below the national poverty indicator and the international poverty scale. This is essential for projecting the zakat impact on government spending in the country's social sector. The objective is to evaluate this influence at a macro level, specifically focusing on estimating how potential zakat can bridge the resource gap. In his work on Islamic social research, Kahf, among others, examined zakat estimations across 8 Islamic countries by employing varying nisab (the minimum amount subject to zakat) amounts based on previous studies. According to Kahf’s findings, indicators used for estimating zakat potential include GDP and z1 (conventional principles based), z2 (contemporary teachings based), and z3 — all representing different bases for calculating zakat — alongside benchmarks like the international poverty threshold set at 1.25 USD per day for those labeled “extra poor”, and 1.90 USD per day for those classified as “poor”. The Figure below demonstrates the zakat potential in GDP for selected countries. The average value of zakat potential to GDP is as follows: z1 -1.80, z2 — 3.85, and z3 — 4.34 (Figure 1).

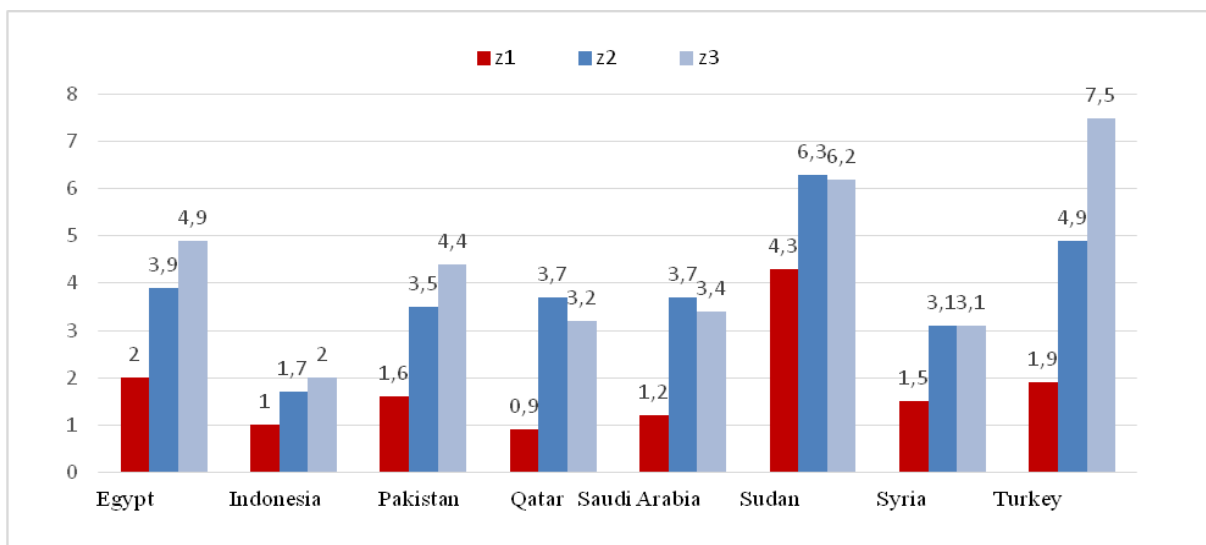


Figure 1. Potential of Zakat

Note — made up by authors on a basis of (Kahf, 1989)

Kahf's study of eight countries was the impulse for further Islamic social research development of the potential zakat estimation and impact on the poverty reduction strategy in 100 countries and economics by

Obaidullah, Shirazi, Hassan, and other authors (Aliyu et al., 2017; Kabir Hassan & Lewis, 2007). The authors' study focuses on the potential impact of implementing a social tax similar to zakat in countries with middle- and low-income. Obaidullah et al. modified approach given by Kahf for the Muslim population. They excluded the non-Muslim population from all calculations since zakat is an obligatory religious contribution for Muslims. Additionally, they deducted the income of those with less than 2 US dollars from the GDP per capita. As a result, they used an average percentage of 2.93 % of GDP as Zakat potential based on Kahf's results.

The Poverty Gap index and the Poverty line indicators were used to evaluate the necessary resource gap to reduce poverty in different countries (Mohammed Obaidullah et al., 2014; Shirazi, 2006).

Poverty Gap Index (PGI):

$$\text{PGI} = \frac{1}{N} \sum_{i=1}^q (Z - Y_i) \quad (1)$$

where:

N –total population;

Z — poverty indicator;

q — population below Z;

Y_i – poor individual income i .

The PGI holds significant promise in supplementing government efforts to reduce poverty and achieve sustainability, and has been rearranged to find the “absolute resource gap” for poverty alleviation, resulting in the formula (2) (Kuanova, 2022).

Resource shortfall:

$$\text{Resource Shortfall} = \text{PGI} \times N \quad (2)$$

where:

PGI — Poverty Gap Index;

N –total population;

Z — poverty indicator;

q — population below Z;

Y_i – poor individual income i .

The ultimate absolute values obtained should be transformed into the share of the GDP. These calculations demonstrate the resources required in the form of country's GDP for poverty reduction. Our primary aim was to examine the zakat effects in addressing poverty in various countries (Table 2).

Table 2. The Impact of Social Taxes on Income Distribution and Poverty Dynamics

Potential effect	Change ≤ 25 %	Change 25 — 75 %	Change 75 % - 100 %	Change 100 % and over	Median of % effects
P1: Z in % of resource gap at 1.25USD	Countries % of the sample 14	Countries % of the sample 21	Countries % of the sample 3	Countries % of the sample 66	Median % resource gap of the sample at 1.25USD 0.87
P2: Z in % of resource gap at 2.00USD	Countries % of the sample 25	Countries % of the sample 13	Countries % of the sample 4	Countries % of the sample 62	Median % resource gap sample at 2.00USD 1.39
Poverty rate Index at 1.25USD	Countries % of the sample 14	Countries % of the sample 21	Countries % of the sample 3	Countries % of the sample 66	beyond the poverty rate 66

Note — made up by authors on a basis of (Zarka & Shirazi, 2017), (Kuanova, 2023)

Data indicates that in 60 % of sampled countries, there is significant potential to minimize the poverty gap and eradicate extreme poverty. Among these nations, 14 could potentially reduce the number of extreme poor people by less than 25 %, while another 21 have the capacity to decrease this figure between 25 % and 75 %. Furthermore, three countries may be able to bring down their population living in extreme poverty by as much as 75 % to 100 % (Oladapo et al., 2017).

PGI to GDP:

$$\text{PGI to GDP} = \frac{\text{Resource Shortfall}}{\text{GDP}} \quad (3)$$

where:

y — income at poverty rate in USD;
 N — population;
 GDP — in USD.

Results and Discussion

The indicators assessment helps to examine the Potential zakat collection role in the Recourse shortfall for Poverty covering. The potential zakat collection methodology by Shirazi and Amin has been used for average zakat in this research for further investigation (C1, C2, C3) (Table 3).

Table 3. Potential Zakat assessment by Shirazi and Amin

Indicator	Specification
GDP, million USD	a widely used economic indicator that measures the total value of domestic produced goods and services within a country's borders during the year
Muslim population, %	the number of individuals who identify as Muslims, adhering to the Islamic faith and its teachings
GDP Adjusted, million USD	The adjusted GDP in USD by Muslim population share
C1 C2 C3 in million USD	Kahf's zakat potential average
<i>Note — made up by authors on a basis of (Shirazi & Bin Amin, 2009)</i>	

The potential zakat collection is assumed to positively impact the poverty alleviation process, as it may address the deepening poverty indicators within the country. The zakat institution holds the capacity to support the needy population and potentially reduce state expenditure on social welfare programs, thereby enhancing the quality of life for socially disadvantaged groups. Our findings have been developed by adjusting the methods considered for the economically active population and the unemployment rate as potential zakat payers must be from these categories (Table 4).

Table 4. Potential Zakat assessment

Indicators	Specification
GDP	The market value of all the final goods and services produced for 2023 in USD
Active population	The total population share involved in goods and services production for 2023, women — 16–59 age, men 16–63 age
Unemployment rate	The part of the economically active population, able and willing to work but unemployed in 2023, the total population share
PHR at 5.50 USD (PPP)	The total population share with income below 5.5 USD a day in 2023
Muslim population	The total population Muslims share
<i>Note — made up by authors</i>	

Additionally, by utilizing the calculated “C (zakat) to GDP potential” and metrics such as “PG to GDP” at 1.90 USD a day, and also 5.5 USD a day, as well as “PR to GDP” at these thresholds, it becomes possible to estimate the number of individuals lifted out of poverty through potential Zakat collection.

The research methodology enables the examination of the correlation between the country's potential Islamic financial assets and the estimated zakat collection, as well as their coverage of state spending on social payments and assistance and resource shortage. Potential zakat impact on recourse shortfall for the country's poverty headcount covering and the government spending on social welfare programs for the curtain population group have been estimated in the research.

The estimating the potential zakat collection and effects on reducing poverty within the country is given in (Figure 2) by Shaikh.

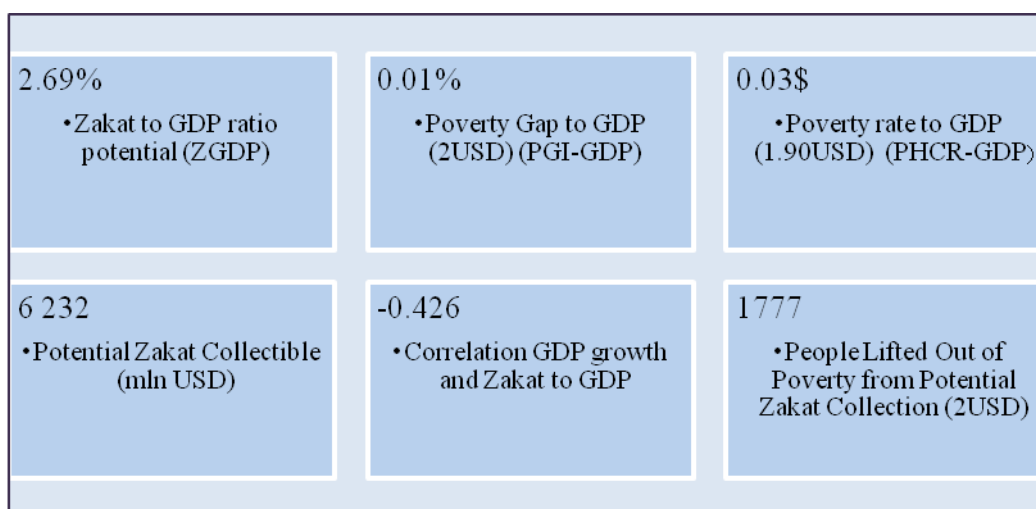


Figure 2. Potential Zakat collection and Poverty reduction, Kazakhstan

Note — made up by authors on a basis of (Shaikh, 2016)

Potential Zakat assessment has been adjusted for the indicators pertaining to actual data as the percentage of GDP. Firstly, we opted to modify the approach employed by Shirazi et al. in computing the potential zakat, which involved removing the non-Muslims and impoverished from the assessment but also adjusting for the population who are economically active as the total population share involved in productive activities. The estimation of this study has been done by using secondary data from the national statistics bureau and the agency for strategic planning and reforms of Kazakhstan for the year 2023. This adjustment considered individuals within the working-age range of 16–59 for women and 16–63 for men for 2023. The initial adjustment resulted in a GDP revision of 65.2 % when measured in US dollars. Considering this correction to the economically active population, it led to the potential zakat collection assessment adjusted for unemployment, standing at 4.7 % of the population for 2023 (stat.gov.kz). After adjusting obtained data for the Muslims, because zakat is obligatory only for Muslims, individuals living below 5.50 US dollars per day were excluded from being considered zakat payers in contrast to the earlier study. We decided to demonstrate two various scenarios, based on the National poverty line income (i) and the international poverty line based on Kazakhstan's 5.5 US dollars a day because country is lower-middle-income (Table 5).

Table 5. Potential Zakat in Kazakhstan, 2023

For year	2023
GDP in million USD	261 418
GDP adjusted in million USD for economically active population, 65.2 %	170 445
GDP adjusted in million USD for unemployed, 4.7 %	162 434
GDP adjusted in million USD for Muslim population, 69.3 %	112 567
GDP adjusted in million USD by poverty line (5.5USD per day)	99 059
C1 million USD	1 477
C2 million USD	3 764
C3 million USD	4 260
C1 % of GDP	0.56
C2 % of GDP collectible Potential zakat	1.44
C3 % of GDP	1.62

Note — made up by authors on the basis of (Kuanova, 2023) (www.stat.gov.kz)

Using considered empirical methods for assessment the resources gap to reduce poverty, the authors have calculated the necessary resources for covering poverty in Kazakhstan as a share of GDP for 2023. Kazakhstan has been using the concept of absolute poverty. This approach defines minimum living costs as equivalent to the cost of a primary consumer basket comprising essential food products, goods, and services required for daily life. Thus, the national poverty rate is established based on the average subsistence minimum per capita as a percentage of economic capabilities, currently at 5.1 % of the population in Kazakhstan. A sample survey involving 12 thousand households is conducted to determine these indicators every quarter.

Additionally, experts and nutritionists select 43 essential items for this consumer basket based on their expertise rather than household behavior.

The authors' assessment of the collectible potential zakat in Kazakhstan revealed that 1.44 of the GDP could be collected as zakat. The minimum amount of the potential zakat is 1 477 million US dollars, while the maximum is 4 260 million US dollars.

The research findings indicate that it would take less than one year to fund poverty with potential zakat collection for the poverty rate at 1.90 US dollars, while it requires between 5 and 6 years for the poverty rate at 5.5 US dollars. The estimated resource shortfall for the population below 1.90 US dollars per day, which is 1.89 %, can be compensated the potential zakat collection. It may be inferred that potential zakat to reduce poverty at 1.90 US dollar requires short period, but 5.50 US dollars requires more time. Over time, as individuals from the group earning under 5.50 US dollars per day move above this threshold and become part of those obligated to pay zakat, there will be the wealth redistribution through zakat institution leading for decrease needy people within society as well as an activation of previously economically inactive population segments.

Conclusion

Based on the data, the aggregate volume of Islamic financial services and the assets belonging to Islamic financial institutions was 2.582 trillion US dollars in 2018, 3.374 trillion US dollars in 2020 and predicted the increase to 4.940 trillion US dollars by 2025 (Islamic Development Bank, 2023) (IsDB, 2024). It is assessed that the global zakat amount is about 1 trillion US dollars. People disperse these funds through various channels rather than centrally through designated zakat funds. The accumulation of this capital within financial institutions, along with the utilization of Islamic finance tools to generate returns, presents significant potential and promising prospects for further social initiatives. Initially, the Islamic finance sector could experience a tenfold growth. Furthermore, the allocated funds would be utilized more effectively. Consequently, one of the primary objectives of Islamic social finance today is to enhance centralization and transparency in the market for distributing zakat.

The potential zakat is considered an instrument for covering resource shortfalls and poverty reduction in Kazakhstan. Furthermore, implementation of the financial technologies for zakat collection process play a vital role in developing Islamic social finance distribution (Yasar, 2021). Establishing a centralized data center for zakat and enhancing online platforms for zakat can enhance confidence in Islamic social finance. This, combined with the high internet usage rate of 77 % among the population, has the potential to influence the expansion of Islamic financial inclusivity greatly.

It is crucial to consider the adoption of Islamic financial approaches and mechanisms within the nation. Utilizing modern financial technologies such as blockchain, crowdfunding, digital accounts, and cards could prove advantageous. Islamic finance has significant potential to enhance financial inclusivity and sustainability by the following means:

Islamic social mechanisms were not considered as a catalyst for the Islamic finance in development of the country yet;

Utilizing technological advancements can address the valid doubts of zakat payers and donors, enabling calculated payments through user-friendly applications;

Promoting Islamic social finance as an ethical financial system could enhance financial inclusion. It is highly advisable to adopt best international practices, tailor legal frameworks to domestic markets, and leverage financial technological instruments to boost transparency;

Enhancing transparency of charitable funds can contribute partially towards alleviating poverty issues.

The proposed suggestions are designed to help expand the range of participants in the Islamic financial industry, which will lead to an increase in financial assets in the Islamic market. It is important to recognize that an increase in Islamic financial assets can enhance the social impact of Islamic finance on the socio-economic development of a country. This encompasses broader zakat collections and reserves Islamic financial institutions hold for philanthropic initiatives. The communal functions carried out by Islamic finance have the capacity to enrich a nation's societal well-being and endurance.

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Әлеуетті ашу: исламдық қаржыландырудың әлеуметтік әсерін бағалау

Аңдатпа

Мақсаты: Этикалық және шариғат қағидаттары шеңберінде қаржы институттарымен бейімделген қаржы құралдарын қамтитын Исламдық қаржыландырудың өсуі негізгі әлемдік нарықтарда қарқын алуда. Аталған үрдіс тереңдетілген әлеуметтік қайшылықтарды шешуге және этикалық нормаларды сақтауға бағытталған ұзақ мерзімді дамуды талап ететін жаңа жаһандық шындыққа негізделген. Өз кезегінде Исламдық қаржының тұрақтылыққа бейімделген тұжырымдамасы шешуші рөл атқарады. Мақала Исламдық қаржының әлеуметтік әсерін және әлеуметтік құралдар арқылы ресурстар тапшылығы мен кедейлікті азайту мүмкіндігін бағалауға бағытталған.

Әдісі: Зерттеу әдістемесі эмпирикалық әдістерге және елдің әлеуетті исламдық қаржылық активтері мен зекет арқылы ресурс тапшылығы арасындағы корреляцияны зерттеуге негізделген.

Қорытынды: Зерттеу нәтижелерінің елдің әлеуметтік-экономикалық дамуына тәжірибелік әсері бар. Кедейлік көрсеткішін азайтуға қажет ресурстардың жетіспеушілігін зерттеудің эмпирикалық әдістерін қолдана отырып, мақала авторлары Қазақстанға қажетті ресурстарды жалпы ішкі өнімнің үлесі негізінде бағалады. Сонымен қатар, авторлар ел үшін ықтимал зекет жинағын есептеп шығарды.

Тұжырымдама: Зерттеу барысында әлеуетті зекет жиыны елдегі кедейлікті азайту және кедейлік көрсеткіштерінің тереңдеу үдерісіне оң әсері бар деген тұжырымдама жасалды. Зекет институтының мұқтаж халыққа үлес қосып, елдің әлеуметтік осал топтарының өмір деңгейін жақсартуға бағытталған мемлекет шығындарын төмендетуге қатысуы мүмкін.

Кілт сөздер: Исламдық қаржы, тұрақтылық, әлеуметтік қаржы, кедейлікті азайту, жалпы ішкі өнім, зекет, ресурстардың тапшылығы.

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Раскрытие потенциала: оценка социального воздействия исламских финансов

Аннотация

Цель: Развитие исламских финансов, которые включают в себя финансовые инструменты, работающие в рамках этических принципов и принципов шариата, принятых финансовыми институтами, набирает обороты на основных мировых рынках. Данная тенденция обусловлена новой глобальной реальностью, в которой долгосрочное развитие невозможно без решения углубляющихся социальных противоречий, соблюдения этических норм, где устойчивый подход исламских финансов играет ключевую роль. Цель этой статьи — оценить социальное воздействие исламских финансов и оценить возможности покрытия дефицита ресурсов и сокращения бедности с помощью социальных инструментов.

Методы: Методология исследования основана на эмпирических методах и изучении корреляции между потенциальными исламскими финансовыми активами страны и предполагаемым сбором закята, участвующего в покрытии дефицита ресурсов.

Результаты: Результаты исследования имеют практическое значение для социально-экономического развития страны. Используя эмпирические методы исследования дефицита ресурсов для снижения уровня

бедности, авторы оценили ресурсы, необходимые Казахстану в доле валового внутреннего продукта. Более того, авторы рассчитали потенциальный объем сбора закята в стране.

Выводы: Предполагается, что потенциальный закят влияет на процесс сокращения масштабов и углубления показателей бедности в стране. Институт закята обладает потенциалом в решении проблем нуждающихся и сокращения государственных расходов на улучшение жизни социально уязвимого населения.

Ключевые слова: Исламские финансы, устойчивость, социальные финансы, сокращение бедности, валовой внутренний продукт, закят, дефицит ресурсов

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Взаимосвязь прямых иностранных инвестиций и экономического роста: библиометрический анализ

Аннотация

Цель: Провести библиометрический анализ взаимосвязи между прямыми иностранными инвестициями и экономическим ростом, которая давно изучается в экономической литературе и имеет особое значение для экономического и социального развития любой страны.

Методы: Для проведения анализа было использовано 4457 публикаций из базы данных Scopus. Основным инструментом работы выступила программа VOSViewer, предназначенная для визуализации данных и выполнения кластерного анализа. В качестве предмета исследования были выбраны публикации, содержащие ключевые слова «прямые иностранные инвестиции» и «экономический рост», что позволило охватить различные временные и региональные аспекты.

Результаты: Анализ показал высокую степень взаимосвязи между ПИИ и экономическим ростом. Кластерный анализ продемонстрировал, что оба термина формируют крупнейший кластер, что свидетельствует о сильной корреляции между ними. В последние годы акцент исследований сместился на экологические аспекты, связанные с влиянием ПИИ. Если раньше основное внимание уделялось экономическим показателям, то современные исследования все чаще рассматривают такие темы, как выбросы углерода и устойчивое развитие.

Выводы: Полученные результаты подтверждают важную роль ПИИ в стимулировании экономического роста и улучшении экологической ситуации. Рекомендуется дальнейшее исследование воздействия ПИИ на экологические аспекты роста и оценки влияния государственных инвестиций на этот процесс.

Ключевые слова: прямые иностранные инвестиции (ПИИ), экономический рост, библиометрические исследования, текстовый майнинг, VOSViewer, экологические аспекты.

Введение

Определение наилучшего уровня инвестиций для поддержания долгосрочного экономического роста является сложной задачей, требующей комплексного анализа различных теоретических подходов, представленных в экономической литературе. Рассмотрим основные аспекты, важные для исследования этой темы.

Классики экономической науки утверждали, что увеличение инвестиций в производство способствует росту национального богатства. Они рассматривали инвестиции как ключевой фактор, повышающий производительность и стимулирующий экономический рост.

В неоклассической теории экономического роста модель Солоу рассматривает экономический рост через три составляющие: капитал, труд и технологический прогресс. Инвестиции играют важную роль в накоплении капитала, но в долгосрочной перспективе основным фактором становится технологический прогресс. Оптимизация инвестиционной политики рассматривается в контексте межвременных моделей.

Неоклассическая модель экзогенного роста исследуют оптимальные уровни сбережений и инвестиций, исходя из предпочтений экономических агентов и межвременного распределения потребления. Их цель — найти баланс между потреблением и накоплением капитала для обеспечения устойчивого экономического роста (Gourinchas, 2014).

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Теория объясняет поведение домохозяйств с точки зрения долгосрочного планирования, при котором потребление распределяется с учетом ожидаемого роста доходов.

Подчеркивается важность совокупного спроса и вмешательства государства для стимулирования инвестиций. По мнению кейнсианцев, государственная политика играет важную роль в поддержании спроса и создании условий для стабильного роста инвестиций. В рамках посткейнсианской школы эти модели предполагают, что для устойчивого роста темпы инвестиций должны соответствовать темпам роста рабочей силы и капитала (Vandenberg, 2019). Определение оптимального уровня инвестиций часто опирается на модели производственной функции, такие как модель Кобба-Дугласа, которые позволяют оценить предельную производительность капитала. Оценка эффективности инвестиций в секторах экономики проводится через анализ рентабельности, включая расчет предельной производительности капитала и влияние инвестиций на ВВП. Экономисты применяют эконометрические методы для оценки взаимосвязи между инвестициями и экономическим ростом на основе анализа данных. Оценка оптимального уровня инвестиций должна учитывать риски, такие как изменения макроэкономической среды, политическая нестабильность и финансовая волатильность. Современные модели роста подчеркивают, что наряду с физическим капиталом важную роль играют инвестиции в человеческий капитал и инновации. Регуляторная стабильность, налоговая политика и защита прав собственности способствуют формированию благоприятных условий для инвестиций. Инструменты государственной политики, такие как субсидии и налоговые льготы, помогают обеспечить необходимый уровень инвестиций и стимулировать экономический рост.

Таким образом, оптимизация инвестиционной стратегии требует учета множества факторов, включая теоретические подходы к росту, государственную политику и институциональные условия. Для корректной оценки необходимо использовать как теоретические модели, так и эмпирические данные, принимая во внимание особенности каждой экономики и существующие риски.

Обзор литературы

Исследования подтверждают, что инвестиции играют ключевую роль в развитии как отдельных стран, так и мировой экономики, влияя на инфраструктуру, создание рабочих мест, повышение производительности и улучшение человеческого капитала. ПИИ являются важным источником капитала для развивающихся и развитых стран. Shenetal. (2010) отмечают, что ПИИ особенно важны для стран с надежной защитой прав акционеров и растущим средним классом, поскольку они способствуют расширению производственных мощностей и передаче технологий. Wangetal. (2009) подчеркивает, что иностранные компании не только приносят финансовые ресурсы, но и способствуют повышению квалификации местных работников, что ведет к росту производительности и устойчивому экономическому развитию. Gogolevaetal. (2018) акцентируют внимание на значении государственных расходов в стимулировании роста через создание рабочих мест и развитие инфраструктуры. Chhengetal. (2005) и Ahamedetal. (2021) указывают на важность частных и государственных инвестиций в развитии новых отраслей и внедрении инноваций. Nasseretal. (2010) подчеркивают, что инвестиции в образование и здравоохранение помогают формировать высококвалифицированную рабочую силу, а эффективные финансовые рынки способствуют привлечению капитала и экономическому росту.

На основе проведенного обзора можно сделать заключение, что инвестиции оказывают многогранное воздействие на экономический рост, способствуя развитию инфраструктуры, человеческого капитала и технологий. Основными факторами, усиливающими это воздействие, являются наличие надежных институтов, интеграция финансовых рынков и стабильная государственная политика. Оптимальное сочетание государственных и частных инвестиций, поддержанное благоприятной макроэкономической средой, является ключевым для достижения долгосрочного и устойчивого экономического роста. На протяжении многих лет эксперты исследуют связь между инвестициями и экономическим ростом в различных странах и экономиках. Множество авторов утверждают, что инвестиции являются движущей силой экономического роста и человеческого развития, представляя собой средство для повышения благосостояния как в национальных экономиках, так и на глобальном уровне. Взаимосвязь между инвестициями и экономическим ростом является предметом длительных исследований в экономической литературе и имеет важное значение для социально-экономического развития стран. Основной целью данного исследования является анализ существующей научной литературы с применением библиометрического подхода для выявления ключевых тенденций и объяснения определенных явлений в рамках текущей экономической ситуации.

Методы

В ходе исследования были изучены 4457 публикаций из базы данных Scopus с использованием инструментов данной платформы и программы VOSViewer. Анализ проводился на нескольких уровнях: распространение информации по типам, тематическое распределение публикаций, временные и географические особенности документов, а также их научное содержание. Один из главных выводов исследования заключается в том, что связь между прямыми иностранными инвестициями и экономическим ростом оказалась весьма значительной (согласно кластерному анализу, проведенному с помощью VOSViewer). Дополнительный анализ, основанный на исследовании наиболее цитируемых статей и ключевых слов, выявил несколько интересных тенденций в отношениях между прямыми иностранными инвестициями и экономическим ростом. Таблица 1 содержит статьи из базы данных Scopus с наивысшими показателями цитируемости.

Таблица 1. Наибольшее количество цитируемых статей из базы данных Scopus

Название	Авторы	Год	Количество цитирований	Аффилиация	Издатель
How does foreign direct investment affect economic growth?	Borensztein E. ; De Gregorio J. ; Lee J. -W.	1998	2945	International Monetary Fund, Research Department, Washington, DC 20431, United States Center for Applied Economics, Dept. Indust. Eng., Univ. de Chile, Santiago, Chile Economics Department, Korea University and NBER, Seoul 136-701, South Korea	Elsevier
Foreign Direct Investment and Economic Growth: An Increasingly Endogenous Relationship	XiaoyingLi; XiamingLiu	2005	1936	University of Nottingham, UK University of Surrey, UK	Elsevier
Foreign direct investment, economic freedom and growth: new evidence from Latin America	Marta Bengoa; Blanca Sanchez-Robles	2003	1724	Department of Economics, University of Cantabria, Spain	Elsevier
Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth	J. BensonDurham	2004	1348	Division of Monetary Affairs, Board of Governors of the Federal Reserve System, Washington	Elsevier
Natural resources and economic growth: The role of investment	ThorvaldurGylfason, GylfiZoega	2006	754	University of Iceland, University of Iceland and University of London	Wiley
Foreign Direct investment, domestic investment, and economic growth in Sub-Saharan Africa	Adams, S.	2009	314	Ghana Institute of Management and Public Administration, Ghana	Elsevier
Is fixed investment the key to economic growth?	Blomström, M., Lipsey, R.E., Zejan, M.	1996	305	Harvard College and the Massachusetts Institute of Technology.	Elsevier
Foreign direct investment and economic growth: Is more financial development better?	Michael J. Osei, Jaebeom Kim,	2020	115	Tabor School of Business, Oklahoma State University, Stillwater, USA	Elsevier
A road towards ecological development in China: The nexus between green investment, natural resources, green technology innovation, and economic growth	Hongwei Zhang, Yanmin Shao, Xiping Han, Hsu-Ling Chang,	2022	98	School of Marxism, Jilin University, Changchun, Jilin, China b Department of Accounting, Ling Tung University, Taichung City, Taiwan	Elsevier
Foreign direct investment, trade openness and economic growth in BRICS countries: evidences from panel data	Umer Jeelanie Bandaya, Saravanan Murugana and Javeria Maryam	2021	47	Ministry of Commerce and Industry, Govt of India, New Delhi, India; Centre for WTO Studies, Indian Institute of Foreign Trade, New Delhi, India	Taylor&Francis Group

В результате акцент сместился с общих экономических аспектов на проблемы экологии и защиты окружающей среды.

Результаты

Как уже упоминалось, анализ был основан на 4457 документах, в названиях, аннотациях или ключевых словах которых присутствуют фразы "экономический рост" и "прямые иностранные инвестиции". База данных Scopus предоставляет возможность проанализировать наиболее распространен-

ные средства распространения информации. Учитывая общее количество работ, содержащих эти фразы в названиях, аннотациях или ключевых словах, один из наиболее информативных анализов касается временной динамики научных статей, как показано на рисунке 1.

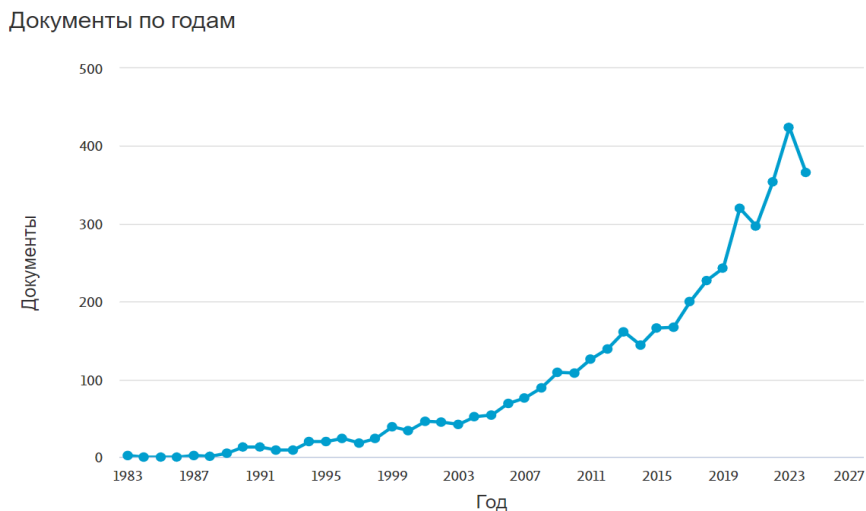


Рисунок 1. Количество документов в год (источник: база данных Scopus)

Примечание — составлено авторами на основе базы данных Scopus.

На рисунке 2 показано географическое распределение научной литературы по континентам в области исследования взаимосвязи между "экономическим ростом" и "инвестициями".

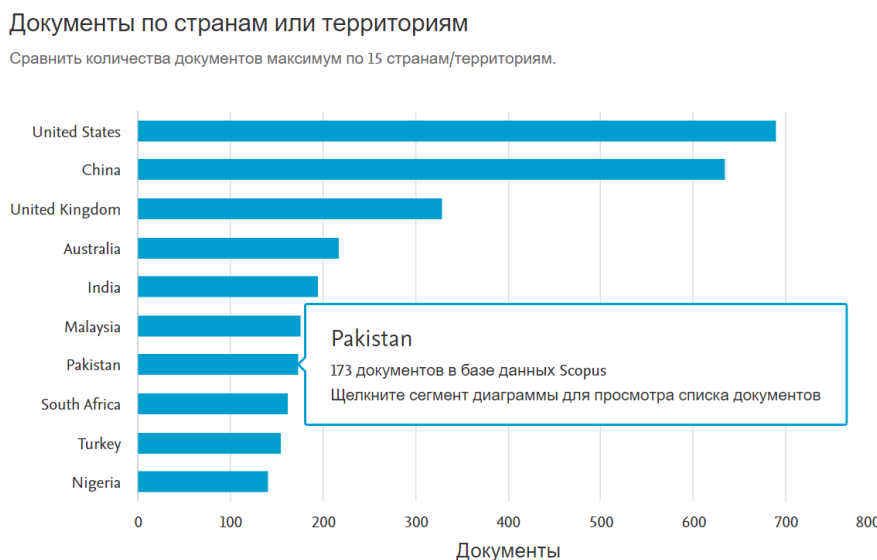


Рисунок 2. Научные литературы по странам/территориям.

Примечание — составлено авторами на основе базы данных Scopus.

Анализ был проведен с использованием программы VOSViewer, которая позволяет составлять списки ключевых слов, авторов, цитат и других элементов, выявляя корреляции и предполагаемые связи между ними. Внутренний анализ в VOSViewer включает 4 этапа:

1. Определение всех фраз в тексте (фраза включает одно или несколько соседних слов);
2. Выбор значимых фраз по алгоритму, основанному на частоте их появления в тексте;
3. Построение карт и кластеров;
4. Визуализация созданных карт и кластеров.

В рамках данного исследования были проанализированы названия, аннотации и ключевые слова из базы данных Scopus. На рисунке 3 представлена визуализация сети для 8745 ключевых слов из 4457 статей, касающихся "экономического роста" и "прямых иностранных инвестиций", выполненная с помощью анализа совпадений в VOSViewer. Эти статьи сформировали 12 основных кластеров, со-

По результатам библиометрического анализа можно сделать заключение, что связь между "экономическим ростом" и "прямыми иностранными инвестициями" весьма сильная. Что касается временного распределения научной литературы по данной теме, то следует отметить, что до 1983 года интерес к исследованию взаимосвязи между "прямыми иностранными инвестициями" и "экономическим ростом" был практически отсутствующим.

В дальнейшем интерес к теме начал расти, особенно начиная с начала третьего тысячелетия. Анализ семантического содержания научных публикаций в данном исследовании показал, что внимание авторов сосредоточилось на трех основных направлениях. Первое направление связано с изучением взаимосвязи между "прямыми иностранными инвестициями" и "экологическим ростом" с экономической точки зрения, акцентируя на изменение климата и корпоративной социальной ответственности. Второе направление фокусируется на экологической стороне этой взаимосвязи, а третье направление исследует причинно-следственные связи между данными терминами.

Выводы

Оптимальный уровень инвестиций, необходимый для обеспечения долгосрочного экономического роста, формируется под влиянием множества факторов. Эти факторы включают как классические, так и современные теории роста, подходы к межвременному выбору, степень государственного вмешательства, а также влияние институциональных и макроэкономических условий. Для точной оценки оптимального уровня инвестиций требуется комплексный подход, сочетающий теоретические модели и эмпирические данные с учетом специфики каждой экономики и существующих внешних рисков.

Будущие исследования могут дополнить текущее понимание взаимосвязи между прямыми иностранными инвестициями и развитием "зеленой экономики". Этот аспект представляет особый интерес, поскольку направлен на обеспечение экологической устойчивости. В то время как исследования в этой области менее развиты по сравнению с изучением экономического роста, зеленая экономика является перспективным направлением для решения глобальных экологических проблем.

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Тікелей шетелдік инвестициялар мен экономикалық өсудің өзара байланысы: библиометриялық талдау

Аннотация

Мақсаты: Экономикалық әдебиеттерде бұрыннан зерттеліп жүрген және кез-келген елдің экономикалық және әлеуметтік дамуы үшін ерекше маңызы бар тікелей шетелдік инвестициялар мен экономикалық өсу арасындағы өзара байланысқа библиометриялық талдау жүргізу.

Әдісі: Талдау жүргізу үшін Scopus дерекқорынан 4457 жарияланым пайдаланылды. Жұмыстың негізгі құралы деректерді визуализациялауға және кластерлік талдауды орындауға арналған VOSViewer бағдарламасы болды. Зерттеу пәні ретінде «тікелей шетелдік инвестициялар» және «экономикалық өсу» негізгі сөздері бар басылымдар таңдалды, бұл әртүрлі уақыттық және аймақтық аспектілерді қамтуға мүмкіндік берді.

Нәтижелер: Талдау ТШИ мен экономикалық өсу арасындағы өзара байланыстың жоғары дәрежесін көрсетті. Кластерлік талдау екі терминнің де ең үлкен кластерді құрайтынын көрсетті, бұл олардың арасындағы күшті корреляцияның бар екенін көрсетеді. Соңғы жылдары зерттеулердің назары ТШИ әсеріне байланысты экологиялық аспектілерге ауысты. Егер бұрын негізгі назар экономикалық көрсеткіштерге аударылған болса, ал замануи зерттеулер көміртегі шығарындылары мен тұрақты даму сияқты тақырыптарды жиірек қарастыруда.

Қорытынды: Алынған нәтижелер ТШИ-дің экономикалық өсуді ынталандырудағы және экологиялық жағдайды жақсартудағы маңызды рөлін растайды. ТШИ-дің өсудің экологиялық аспектілеріне әсерін одан әрі зерттеу және мемлекеттік инвестициялардың осы процеске әсерін бағалау ұсынылады.

Түйінді сөздер: тікелей шетелдік инвестициялар (ТШИ), экономикалық өсу, библиометриялық зерттеулер, мәтіндік майнинг, VOSViewer, экологиялық аспектілер.

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The Relationship Between Foreign Direct Investment and Economic Growth: A Bibliometric Analysis

Abstract

Object: To carry out a bibliometric analysis of the relationship between direct foreign investment and economic development, which has been studied for a long time in the economic literature and is of special importance for the economic and social development of any country.

Methods: 4457 publications from the Scopus database were used for the analysis. The main tool of the work was the VOSViewer program, designed for data visualization and cluster analysis. Publications containing the keywords "direct foreign investment" and "economic growth" were selected as the subject of the study, which allowed to cover various temporal and regional aspects.

Results: The analysis showed a high degree of correlation between FDI and economic growth. Cluster analysis demonstrated that both terms form the largest cluster, which indicates a strong correlation between them. In recent years, the focus of research has shifted to the ecological aspect related to the impact of PII. If earlier the main attention was paid to economic indicators, then modern studies increasingly consider such topics as carbon emissions and sustainable development.

Conclusion: The obtained results confirm the important role of FDI in stimulating economic growth and improving the environmental situation. Further research into the impact of FDI on environmental aspects of growth and assessment of the impact of public investment on this process is recommended.

Key words: direct foreign investment (FDI), economic growth, bibliometric research, text mining, VOSViewer, ecological aspect.

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Profiles and analysis of cash flows in enterprises: on the example of an enterprise in Kazakhstan and Turkey

Abstract

Object: The aim of this research is to conduct a comparative analysis of the cash flow statements of the largest airlines in Turkey and Kazakhstan over the period 2019–2023, using the cash flow dependent activity model.

Methods: The study utilized the cash flow transaction model proposed by Gup et al., which serves as a complementary model for estimating financial data derived from cash flow statements.

Findings: The article discusses the cash flow statement, its significance, presentation, and reporting, as well as the definition of a business model on which cash flows depend and an explanation of eight different models. It also analyzes the cash flow statements of some of the largest airlines in Turkey and Kazakhstan over the period 2019–2023 and presents the results. Based on the analysis, it concludes that the airlines under study fit the profile of Model 2, indicating a successful business model.

Conclusions: When analysed, it is evident that the cash flows of the companies in the study primarily follow Model 2 (+, -, -), which is recognised as the most successful business model. The cash flow profile of successful businesses (+, -, -) ranks first in this study, as it does in all other studies.

Keywords: Cash Flow, Statement of Cash Flows, Cash Flow Generating Activities Model

Introduction

Cash flow represents the movement of funds into and out of an organization's accounts. This is approximately equal to transactions made with a personal bank card. People use money for various purposes, such as purchasing goods, making bills, repaying loans, and receive income from sources such as loans, savings interest, and rebates. Similarly, companies mediate these economic processes on a larger scale.

Cash flow can be classified as positive when receipts are greater than expenses. While negative cash flow occurs when expenses exceed receipts. Negative cash flow is generally defined as unfavorable. While positive cash flow is defined as favorable, using these classifications alone to estimate cash flow can lead to inaccuracies. To carry out a comprehensive analysis It is important to differentiate cash flows by different activities.

Motivators to manage negative cash flow may suffer from anxiety that can impede decision-making. Identifying where funds are diverted is important in finding hidden problems. For example, a company may invest heavily in expensive production equipment this month in anticipation of future profits. It's important to manage obligations effectively and ensure that a negative cash balance doesn't escalate into a serious concern. Without a thorough cost analysis Owners may be at risk of making harmful management decisions. To avoid such situations It is important to allocate all cash in the company across different channels.

Theoretical overview. Before analyzing cash flow the company must prepare a cash flow statement. It shows all cash flows from normal business and external investment sources, as well as all cash flows related to business activities and investments during a given period. The cash flow statement should be divided into three main categories: cash flow from operating activities (CFO), cash flow from investing (CFI), and cash flow from financing activities (CFF). (Table 1).

Cash flow represents the total net cash amounts generated from the three main categories: operating, investing, and financing activities.

In 1971, the American Accounting Standards Board released the original version of the cash flow statement, initially referred to as the statement of changes in financial position. This document, subsequently renamed the cash flow statement, was created to complement the income statement and offer a more detailed

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perspective on a company's financial performance (Fridson & Alvarez, 2002: 91). Its purpose is to clarify the variations in cash and cash-equivalent assets between two successive periods (Akdoğan & Tenker, 2010: 358).

Table 1. Categories of cash flow

№	Categories of cash flow	Description
1	CFO	This section details the cash flows generated from operating activities. Includes changes in current assets and liabilities throughout the year.
2	CFI	This section tracks cash flows resulting from investments and sales of long-lived stocks. This category may include fixed assets. Buildings and equipment, vehicles, furniture, buildings or empty rooms.
3	CFF	This section provides information about transactions involving debt and equity. This includes cash flow related to dividend payments. Buying or selling stocks (equity) and bonds (debt), as well as cash received in the form of loans and used to repay long-term debt.

Note — compiled by the author

Cash flow schedules are an important source of financial information and provide important insights into a company's ability to generate and manage cash effectively. In accordance with the presentation guidelines set out by International Accounting Standard 1 (IAS 1), this presentation must be presented alongside the balance sheet, income statement and presentation of changes in shareholders' equity. The reporting and presentation of cash flows is governed by International Accounting Standards No. 7 (IAS 7), which addresses the need to categorize cash flows into operating, investing, and financing segments. This categorization allows for a more detailed analysis of a company's cash flows. Because positive or negative numbers within these categories provide important insight into a company's overall cash position.

It is important to examine the sources of cash flow and the financial events that lead to it using various techniques. to collect relevant information A smooth technique is to adjust the cash flow model. This involves evaluating a company's cash flow profile by determining whether the company is experiencing positive or negative cash flow from the three main types of activities on the cash flow statement: operating, investing, and financing.

The cash flow transaction model, introduced by Gup et al. in 1993, is used as a supplementary model for estimating financial information obtained from cash flow presentations. When analyzing cash flow data without considering This model has become one of the preferred standards in the literature. Because it emphasizes the meaning of financial data and makes its application easier (Karğın ve Aktaş, 2011: 9), data from operating, investing, and financing activities in the cash flow table are divided into 8 different groups. according to the generation of cash flows and outflows, that is, positive and negative results. This categorization facilitates analysis by adjusting economic data according to relevant categories.

This model gives financial analysts a greater perspective in interpreting information from the cash flow statement. This makes it a valuable tool for evaluating a company's financial data alongside other analytical methods. The model is also suitable for providing alternative proposals when evaluating economic data derived from analysis (Aktaş, Karğın ve Karğın, 2012: 105).

In accordance with the "Cash-Generating Activity Model" developed by Gup et al. (1993), these 8 models and their explanations are given in the table 2 (Çil Koçyiğit, Senemoğlu ve Dursun Temiz, 2021: 1175):

Table 2. Description of models by Gup et al. (1993)

Model	Structure of the enterprise	Description of models	CFO	CFI	CFF
1	2	3	4	5	6
M1	Rare business	The model shows that cash flows from operating, investing, and financing activities are positive. It is assumed that cash flows come from operating activities, investments, and sales of plant assets, price increases and other external and intangible sources for companies following this model. Expect a lot of cash flow in the next period (Karğın ve Aktaş, 2011: 9).	+	+	+

Continuation of Table 2

1	2	3	4	5	6
M2	Successful business	In this model, cash flow comes from operating activities. While cash flow refers to investing and financing activities. This indicates that funds generated from operating activities can be achieved to cover costs associated with investment and financing. For companies that follow this model It will serve as a sign of financial stability. This reflects its strong liquidity and ability to face its debt burden. The same goes for companies that usually show high profits large income and consistent dividends (Karadeniz, 2017: 173).	+	-	-
M3	Recession, business reorganisation	This model is often seen in companies going through a downturn or restructuring phase. During that time Cash flow comes from both operating and investing activities. While cash flow is mainly related to financing activities. This pattern reveals a rather unusual method of fundraising. This means that the company uses the cash it receives from operating activities and investments to pay down debt when it sells assets (Tüfekçi ve Karaca, 2019: 159).	+	+	-
M4	Growing business	This model shows cash flows from both operating and financing activities. with cash flows related to investment activities This situation often arises as a result of expanding companies. This suggests that although there is cash flow from operating activities But they do not have access to financial investment activities. Therefore, the company may issue shares or borrow money to cover the shortfall. Moreover, investors and financial institutions that rely on financial information remain optimistic about the company's future prospects (Kocyiğit vd., 2021: 1175–1176).	+	-	+
M5	Reduction in business	This model shows companies experiencing consolidation. In this situation Operating activities cannot generate cash. while cash flow comes from investing and financing activities. If cash flow problems from operations persist It is expected that the interest of investors and creditors who rely on financial information will fall (Başkan ve Dozen, 2019: 3351).	-	+	+
M6	Young business	The model represents a young, growing company experiencing cash flow from both operating and investing activities. while cash flow is derived from financing activities. This indicates that the company is financed primarily through debt or equity, usually during expansion. This pattern indicates that the company is able to meet its short-term obligations. and expects to generate income from the main business according to the investments made The expected capital inflow reflects the positive trends from investors and long-term investors in this financial information industry (Kargın ve Aktaş, 2011: 10).	-	-	+
M7	Businesses lack liquidity	This model represents a situation in which a company faces a liquidity crisis. In this case, cash flows come from both operating and financing activities. while cash flow comes from investing activities. This means that the company raised funds by selling assets, which is not an ideal situation. It may also indicate challenges with building awareness and may put the company at risk of bankruptcy (Karadeniz, 2017: 174).	-	+	-
M8	Rare business	This is one of the rare models and shows cash flows from all activities on a company's cash flow statement. This situation can be interpreted as the result of all previously accumulated cash flows.	-	-	-

Note — compiled by the author

Modeling of cash flow generating activities consists of several different models that are estimated by analyzing the positive and negative aspects of data from these activities. The model does not estimate the magnitude of cash flow information from operating, investing, and financing activities. But it also focuses on the type of transactions involved. In each model Surplus from all three types of activities is analyzed by categorizing transactions as cash flow (positive) or cash flow (negative) based on their impact on the organization's overall cash position (Aktaş vd., 2012: 106).

In 1989, Gup et al. (1993), who introduced this model in their research, analyzed the cash flow data of 1745 companies and obtained the following results shown in the table 3:

Table 3. Application of the cash-generating activities method

Model	Structure of the enterprise	(%) Distribution
M2	Successful business	%46
M4	Growing Business	%35
M3-7	Declining business, Businesses lack liquidity	%7
M1-5-8	Rare, shrinking, rare business	%5

Note — compiled by the author based on Gup et al. (1993)

Analysis of cash flow data for 1,745 companies as shown in the table. It indicates that the highest level of cash flow (46 %) is associated with Model 2, indicating a successful business model. Model 4 follows closely (35 %) and indicates increased commercialization. The remaining generation's cash flow is relatively low. Corporate cash flow reports fall into three main categories. These results should be evaluated and interpreted in conjunction with other analytical methods. This is because the pattern of cash flow activity is affected by positive and negative changes in these categories not just absolute values (Koçyiğit vd., 2021: 1175).

Literature Review

The literature review reveals numerous studies across various industries examining the feasibility of implementing a cash flow generating operations model. Below are some of the studies on this model:

In a study conducted by Gup et al (1993) on one thousand seven hundred forty-five (1745 firms in 1989, financial performance and cash flow profiles were analysed according to a cash flow generating activity model. According to the results of the study, forty-six percent (46 %) of the firms were in model 2 (+,-,-) and thirty-five percent (35 %) were in model 4 (+,-,+).

Brouwer and Hamman (2005) analysed the cash flow profiles of South African businesses. The study assessed cash flow patterns by combining the cash flow generating activity model presented by Gup et al (1993) with the business life cycle. The study found that the businesses analysed predominantly belonged to the model 2 (+,-,-) of successful businesses and were at the maturity stage in the business life cycle.

Karğın and Aktaş (2011) conducted a study based on the idea that using cash flow statements together with other financial statement data in financial decision making process will lead to better results. This study analyzed the financial statements of a publicly listed construction company over a five-year period from 2006 to 2010. The analysis utilized horizontal analysis, trend analysis, ratio analysis, and a cash flow model. Within the study, model 2 (+,-,-) was used in all other years except 2008. Similar to the studies in the literature, model 2 (+,-,-) comes first in this study. The study identified the need to use cash flow statement data with data from other analyses.

Aktas et al. (2012) conducted a study based on the hypothesis that by analyzing the positive and negative aspects of operating, investing, and financing activities — key components of the cash flow statement — significant insights can be gained into an enterprise's cash flow profile. The study examined data from 176 companies listed on the Turkish stock exchange over the period 2007–2010. The analysis was categorized by year, sector, and asset size. As a result of the study, it was observed that there is a density of profiles of successful business model 2, growing business model 4, young and fast growing business model 6.

Orhan and Basar (Başar) (2015) conducted a study that analysed the cash flow profiles and selected ratios of enterprises in the Borsa Istanbul 100 index. The study analysed the data of 55 enterprises for the years 2008–2013, excluding 3 sports clubs, 33 financial enterprises and 9 enterprises whose data could not be obtained. As a result of the study, the profiles of enterprises are concentrated in model 2 (successful business) and model 4 (growing business). At the same time, financial data of enterprises in model 2, which is the most common profile in the survey, were compared with financial data of enterprises in all other profile.

Azgyň and Başar (Başar) (2016) conducted a cash flow analysis using 5 years of data for 6 companies operating in the retail and BIST sector. In addition, correlation analysis was conducted to identify the coefficients with strong relationship between them. As a result of the study, it was observed that cash flows from operating activities were positive and cash flows from investing and financing activities were negative. Model 2 (+,-,-) corresponded to a successful business profile.

Karadeniz (2017) in his study analysed the cash flow performance of publicly traded accommodation enterprises in an international comparison according to the activities from which the cash flows are generated. The study included 207 accommodation enterprises in the American, European and Asia-Pacific continents in the analysis. Based on the results of the analysis, the business profiles of Model 2 (successful business), Model 4 (growing business), Model 3 (declining and restructuring business) are concentrated on the basis of year, continent and Turkey.

Tyufekçhi (Tüfekçi) and Karaca (2019) aimed to make an international comparison of cash flow statement data using the method of activities from which cash flows are generated and ratio analysis techniques. For this purpose, the cash flow statements of the 100 national and international companies with the highest net sales revenues for the years 2010–2016 were analysed. As a result of the study, it can be seen that national and international enterprises have the most common profile of model 2 (successful enterprise). The second most common profile is model 4 (growing enterprise). While model 6 (young business) is found in national companies, it is not found in international companies. At the same time, it is noted that cash flow analysis sheds light on current and future periods and provides information on the cash flows of an enterprise, and that using the methods in combination will produce more effective results.

Başkan (Başkan) and Dozen (2019), the study examines the cash flow statements of 50 enterprises in the BIST 100 index for the years 2009–2018. In this context, an attempt is made to determine the relationship between enterprises with model 2 profile and earnings quality, return on assets, return on equity and cash flow liquidity ratios. The study concludes that cash flow from operating activities improves the efficiency of asset utilisation and equity capital.

Kablan and Guvemli (Güvemli) (2019) analyze the financial characteristics of tourism companies listed on the BIST XTRZM index using a funded performance model. Focusing on the period 2012 to 2016, the results indicate that these tourism organizations are active in the period of maturity and growth of Borsa Istanbul. These definitions are consistent with Model 2. (successful companies), Model 4 (growing companies), and Model 6 (young companies).

Akdoğan (Akdoğan) et al (2020), analysed the financial statements and notes of 444 companies traded in the BIST 100 for the 5-year operating period from 2015 to 2019, grouped by sector. As a result of the study, cash flows from operating activities and cash flows from investing activities have shown a positive trend and have increased over the years. On the other hand, cash flows from financing activities generated high cash inflows in the first four years but experienced high cash outflows in the last year.

Koçyiğit (Koçyiğit) et al (2021) aimed to identify the financial performance by analysing the cash flow statement of a private group of health care providers in analysing the ratios and cash flow activities. Cash flow data of a private healthcare provider traded in the BIST 100 from 2017 to 2019 were analysed. The analysis identified profiles of Model 6 (young business) in 2017 and 2018 and Model 4 (growing business) in 2019 (Şanlıtürk et al., 2022).

Yasemin Şanlıtürk et al (2022), 5-year cash flow statements of 7 tourism enterprises traded in BIST 100 covering the years 2017–2021 were examined and analysed according to the "Cash Flow Generating Activities Model" developed by Gup, Samson, Dugan, Kim and Jittrapanun (1993). As a result of the study, Model 2 (+,-,-) successful business, Model 3 (+,+,-) declining restructuring business and Model 4 (+,-,+) growing business profiles were observed. At the same time, Model 1 (+,+,+) and Model 5 (-,+,+) profiles were not found in the study.

Results and analysis

This study analyzed the cash flow indicators of large airlines in the Republic of Turkey and the Republic of Kazakhstan using the cash flow model method. The analysis covers the quarterly periods from 2019 to 2023. Three major airline company of the Republic of Kazakhstan and the Republic of Turkey for 2019–2023 were selected for the study. Data on the companies included in the study were obtained from the official website of the Financial Reporting Depository (FRD) of the Ministry of Finance of the Republic of Kazakhstan for companies in Kazakhstan and from financial statements downloaded from the Public Disclosure

Platform (KAP) for companies in Turkey. The companies included in the study are presented in the table 4 below.

Table 4. Companies included in the scope of the analysis

Country of enterprise	Enterprise name
Republic of Kazakhstan	JSC AIR ASTANA
	JSC QAZAQ AIR
	JSC Scat Airlines
Republic of Turkey	Çelebi Air Service Incorporated Company
	Pegasus Air Transportation Joint Stock Company and its Subsidiaries
	Turkish Airlines and Its Subsidiaries

Note — compiled by the author

By examining the cash flow statements of the companies, the analysis identified positive or negative cash flows depending on the business model under which the cash flows are provided and compared them with the models defined by Gup et al. (1993).

The table 5 below shows the results of an analysis of which model is suitable for calculating the cash flows of companies in the Republic of Turkey as part of a study conducted by firms in 2019–2023.

Table 5. The results of the analysis of the cash flows of companies in the Turkish Republic

Companies of the Republic of Turkey					
	2019	2020	2021	2022	2023
Çelebi Air Service Incorporated Company (Çelebi Hava Servisi Anonim Şirketi)					
CFO Activities	+	+	+	+	+
CFI Activities	-	-	-	-	-
CFF Activities	-	-	-	-	-
Cash-flow Generating Activities Model	2	2	2	2	2
Pegasus Air Transportation Joint Stock Company and its Subsidiaries (Pegasus Hava Taşımacılığı Anonim Şirketi Ve Bağlı Ortaklıkları)					
CFO Activities	+	+	+	+	+
CFI Activities	-	-	-	-	-
CFF Activities	-	-	+	-	-
Cash-flow Generating Activities Model	2	2	4	2	2
Turkish Airlines and Its Subsidiaries (Türk Hava Yolları Anonim Ortaklığı And Its Subsidiaries)					
CFO Activities	+	+	+	+	+
CFI Activities	-	-	-	-	-
CFF Activities	-	-	-	-	-
Cash-flow Generating Activities Model	2	2	2	2	2

Note — compiled by the author

The table shows that all three companies consistently reported positive net cash flows from operating activities and negative net cash outflows from investing activities during the study period, indicating a healthy cash position. This suggests that the companies were in a growth and development phase, making new investments funded by cash generated from operations, rather than relying on bank financing. During these years, the companies aligned with Model 2, indicating that they were healthy and had no liquidity concerns or difficulties paying debts. They also exhibited high profitability, substantial overall assets, and reasonable rates of growth. In 2021, Pegasus Air Transportation Company Limited and its subsidiaries reported net cash inflows from operating and financing activities and net cash outflows from investing activities. This aligns with Model 4, which indicates that investors and lenders, who rely on financial information, have a positive view of the company's future. This is due to the fact that the company is in a stage of growth and funds its investments through equity and debt financing.

Next, in the table 6, we will consider the conclusions about which model is suitable for the cash flows of companies in the Republic of Kazakhstan in the framework of the 2019–2023 study by firms.

Table 6. The results of the analysis of the cash flows of companies in the Republic of Kazakhstan

Companies of the Republic of Kazakhstan					
	2019	2020	2021	2022	2023
JSC AIR ASTANA					
Operating Activities	+	+	+	+	+
Investment Activities	+	+	-	-	-
Financing Activities	-	+	-	-	-
Cash-flow Generating Activities Model	3	1	2	2	2
JSC QAZAQ AIR					
Operating Activities	-	-	+	+	
Investment Activities	-	-	-	-	
Financing Activities	+	+	+	+	
Cash-flow Generating Activities Model	6	6	4	4	-
JSC Scat Airlines					
Operating Activities	+	-	+	+	
Investment Activities	-	-	-	-	
Financing Activities	-	+	-	-	
Cash-flow Generating Activities Model	2	6	2	2	-
<i>Note — compiled by the author</i>					

Analysing this table, the following conclusions can be drawn:

In 2019, JSC AIR ASTANA showed net cash flow from operating and investment activities. While financial activities show net cash flow. This scenario is consistent with Model 3, which indicates that the company may be in the process of downsizing or restructuring. On the other hand, the company reported net cash flow in 2020 from all three activities. It was noted that operating activities, investments, and sales of business assets Investment profits and other intangible external sources. contributes to this positive trend. Moreover, according to Model 1, this scenario also signals possible planning for significant cash flows in the coming period.

In 2020–2023, there is a net cash inflow from operating activities and a net cash outflow from investing activities, which is in line with the profile of model 2. It can be said that the following years the company developed and provided cash flows in line with its successful business model. It can be said that in these years the company realised new investments, paid financial debts and dividends, and managed its finances successfully due to the positive net cash flows generated from operating activities in the period 2019–2020, JSC QAZAQ AIR's cash flow followed Model 6, indicating a young business model. Although the company generated negative cash flow from its operating activities and investments during this time, it managed to offset these through debt or equity financing. In the 2021–2022 period, the company reported positive net cash flows from operating and financing activities, while its investing activities generated net cash outflows. This aligns with Model 4 and suggests that investors and lenders, who rely on financial data, have a favorable outlook on the company's future prospects. Under Model 4, companies are in a growth phase, financing their investments through equity and debt, which is consistent with the company's current situation.

For JSC Scat Airlines, net cash flow from operating activities and net cash flow from investing activities are observed in 2019, 2021 and 2022, which is consistent with the profile for Model 2, indicating strong business results. On the other hand, the flow data Cash in 2020 indicates net cash flow from both operating and investing activities. along with net cash flow from financing activities This model is consistent with Model 6, which assumes that firms manage cash flow through equity financing or equity financing.

According to the analyses made, the following conclusions can be drawn that the airlines under study for the two countries fit the profiles of model 2, which assumes a successful business structure.

Discussions

From the research results Airlines in the Republic of Turkey included in the study fall into two categories: Model 2, which is labeled; Model 4 is called "successful businesses" and Model 4 is called "emerging businesses." The analysis shows that these companies show positive cash flow. from operating activities along with negative cash flow from investing and financing activities. During the period under consideration Most of the companies fall into pattern 2: "successful business" followed by pattern 4: "growing business". It can be inferred that the Turkish airlines analyzed are in the growth phase. and growth of the business life cycle as indicated by the cash flow profile.

Analysing the results obtained, the airlines of the Republic of Kazakhstan included in the study were divided into groups: Model 2: "Successful Business", Model 4: "Growing Business" and Model 6: Fast Growing Start-up Business. The study found that the companies have positive cash flow from operating activities and negative cash flow from investing and financing activities. It is also found that in all the years, JSC AIR ASTANA and JSC Scat Airlines mainly belong to model 2: "Successful business", and for JSC QAZAQ AIR belongs to models 4: "Growing business" and 6: Fast growing start-up business. Based on these results, it can be concluded that the airlines of the Republic of Kazakhstan considered in the study are also at the stage of maturity and growth of the business life cycle in accordance with the cash flow profiles. Also obtained results of JSC AIR ASTANA can be seen profiles of 2 models: Model 1: Rare business and Model 3: Recession, business reorganisation, which are very rare

Conclusions

A company may face economic hardship if it is unable to manage sufficient cash to meet expenses and short-term obligations. Even though the company manages dividend payments responsibly. for day-to-day operations and current liabilities Limited cash flow can negatively impact a company's ability to pursue growth opportunities and deal with unexpected costs. A continuous flow of capital is essential to running a sustainable business.

Upon analysis, it is evident that the cash flows of the companies within the study predominantly align with Model 2 (+,-,-), which is recognized as the most successful business model. This finding is consistent with previous literature (Gup et al. 1993, Bruwer and Hamman 2005, Karğın and Aktaş 2011, Aktaş et al. 2012, Orhan and Başar 2015, Azgın and Başar 2016, Karadeniz 2017, Tüfekçi and Karaca 2019, Kablan and Güvemli 2019). The cash flow profile of a successful business (+, -, -) ranks first in this study, as it does in all other studies. According to these results, Model 4: Growing business (+, -, +) and Model 6: Fast-growing start-up business (-, -, +) showed minor differences and also ranked significantly in previous studies. Another similar finding pertains to rare cash flow profiles. Consistent with previous studies, our research identifies few companies with Model 1 profile (+, +, +) and Model 3 profile (+, +, -). Our results closely align with those of Aktaş et al. (2012), who analyzed data from 176 companies traded on the Turkish stock exchange; Tüfekçi and Karaca (2019), who examined the cash flow statements of 100 national and international companies with the highest net sales revenue from 2010 to 2016; and Kablan and Güvemli (2019), who studied tourism companies listed on Borsa Istanbul.

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Кәсіпорындардағы ақша ағындарының профилдері мен талдауы: Қазақстан мен Түркиядағы кәсіпорындарының мысалы негізінде

Аңдатпа

Мақсаты: Бұл зерттеудің мақсаты — ақша ағындары тәуелді болатын қызмет моделін қолдана отырып, Түркия мен Қазақстанның 2019–2023 жылдардағы ірі авиакомпанияларының ақша қаражаттарының қозғалысы туралы есеп модельдеріне салыстырмалы талдау жүргізу.

Әдісі: Зерттеуде 1993 жылы Гуппен басқа бірлескен авторлар ұсынған ақша ағындары операцияларының моделі қолданылды. Бұл ақша қаражаттарының қозғалысы туралы есептерден алынған қаржылық деректерді бағалаудың көмекші моделі ретінде қызмет етеді.

Қорытынды: Мақалада ақша қаражаттарының қозғалысы туралы есеп, оның мәні, ұсынылуы, есептілігі, "ақша ағындары тәуелді болатын қызмет моделі" анықтамасы, сондай-ақ сегіз түрлі модельдің түсіндірмесі қарастырылады. Сондай-ақ, Түркия мен Қазақстанның ірі авиакомпанияларының 2019–2023 жылдардағы ақша қаражаттарының қозғалысы туралы есептері талданып, алынған нәтижелер ұсынылды. Мұнда жүргізілген талдауға сәйкес, зерттелетін авиакомпаниялар табысты бизнес құрылымын болжайтын 2-модель профиліне сәйкес келеді деген қорытындылар алынды.

Тұжырымдама: Талдау кезінде зерттеуге қатысатын компаниялардың ақша ағындары негізінен модельге сәйкес келетіні айқын болады 2 (+, -, -), ол ең табысты бизнес-модель ретінде танылды. Табысты бизнестің ақша ағындарының профилі (+, -, -) барлық басқа зерттеулер сияқты осы зерттеуде бірінші орында.

Кілт сөздер: Ақша ағыны, ақша қаражаттарының қозғалысы туралы есеп, ақша ағындарын тудыратын қызмет моделі.

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Профили и анализ денежных потоков на предприятиях: на примере предприятия в Казахстане и Турции

Аннотация

Цель: Цель данного исследования — провести сравнительный анализ моделей отчетов о движении денежных средств крупнейших авиакомпаний Турции и Казахстана за 2019–2023 годы, используя «модель деятельности, от которой зависят денежные потоки».

Методы: В исследовании использовалась модель операций с денежными потоками, представленная Гупом и соавторами в 1993 году. Которая служит вспомогательной моделью для оценки финансовых данных, полученных из отчетов о движении денежных средств.

Результаты: В статье рассматривается отчет о движении денежных средств, его значение, представление,

отчетность, определение «модели деятельности, от которой зависят денежные потоки», а также объяснение восьми различных моделей. Также проанализированы отчеты о движении денежных средств крупнейших авиакомпаний Турции и Казахстана за 2019–2023 годы и представлены полученные результаты. Где согласно проведенному анализу, получены выводы, что исследуемые авиакомпании соответствуют профилю модели 2, которая предполагает успешную бизнес-структуру.

Выводы: При анализе становится очевидным, что денежные потоки компаний, участвующих в исследовании, в основном соответствуют модели 2 (+,-,-), которая признана наиболее успешной бизнес-моделью. Профиль денежных потоков успешного бизнеса (+, -, -) занимает первое место в этом исследовании, как и во всех других исследованиях.

Ключевые слова: Денежный поток, отчет о движении денежных средств, модель деятельности, генерирующей денежный поток.